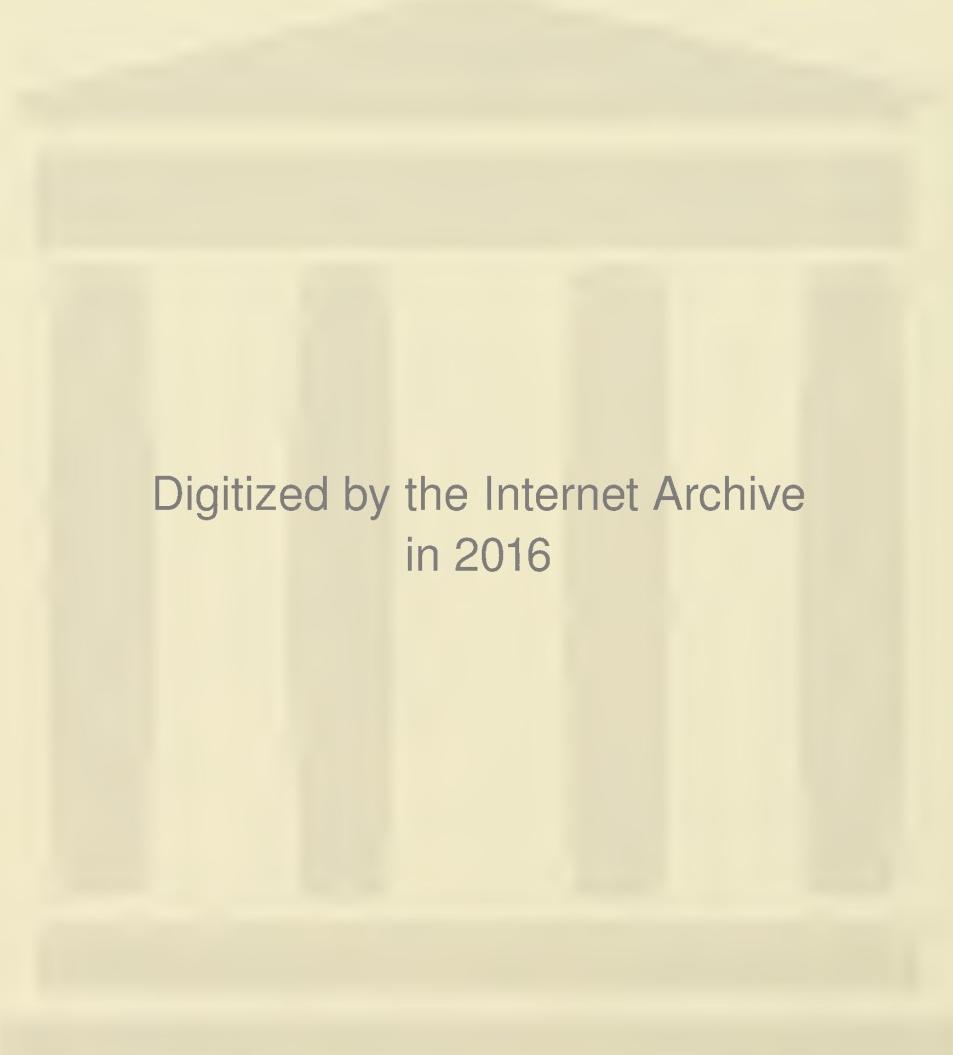


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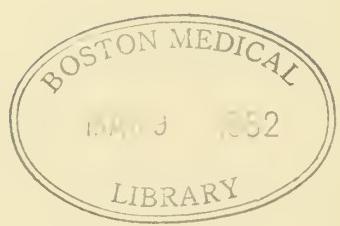
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RADIATION THERAPY AS RELATED TO GENERAL PRACTICE

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Radiation therapy, unfortunately, must still be regarded as highly specialized medical care, and therefore cannot be available in the average physician's office. There are three reasons for this. First, the equipment must be designed especially for therapy. This means that the voltage used is considerably higher than in machines used for diagnostic procedures. A tube-cooling system must be used so that the machine can be operated continuously for the relatively long exposure times necessary in therapy. Furthermore, adequate control of filters, portal size, and target-skin distance must be incorporated in the design of the equipment. Not only is the equipment expensive but the thick lead walls necessary for the protection of the operator add further to the expense.

Secondly, even though the kilovoltage, filtration, portal size, target-skin distance, and milliamperage are all precisely known, these factors tell us little if anything about the rate of dose given per minute. In order to determine the dosage rate in roentgens per minute, the unit must be calibrated by an ionization meter. This calibration must be made for every different combination of voltage, filter, milliamperage, and distance used. Furthermore, the radiation quality, expressed as half-value layer, must be measured for each combination of voltage and filter used. These measurements must obviously be made by a radiation physicist or a radiologist, and it is necessary to repeat such calibrations at frequent intervals.

Finally, even if the machine is available and if it is properly calibrated, therapy should only be prescribed and administered by a physician who has had special training in radiation therapy. The ionizing radiations are extremely dangerous and treacherous and must be administered with the utmost precision and careful judgment if disasters, such as radiation necrosis, are to be avoided.

Nevertheless, radiation therapy is becoming more easily available every year. More and more physicians are being trained in the use of radiation therapy, and many of these men are locating in small towns. Good roads and faster transportation have brought medical centers within range and availability of a wider radius of communities. Therefore, I think it quite appropriate for us, at this time, to consider some of the conditions for which x-ray therapy is indicated.

It is obvious that, in the short time available, it would be impossible to do more than list the diseases amenable to radiation therapy, let alone discuss the indications for such therapy. Cancer is obviously the most common disease for which radiation therapy is used. Surgery and radiation therapy are the only major weapons we have against cancer. About one third of all patients with cancer are best treated by radical surgery, and about one third are best treated by radical irradiation. The remaining third are best treated by palliative irradiation, palliative surgery, or a combination of the two. The indications for surgery and the indications for radiation therapy for cancer are

determined by the histologic type, the degree of anaplasia, the location of the lesion, and the extent of the lesion. This is rather obviously a complicated and detailed subject and can not be pursued further at this time.

Skin diseases make up a second large group of lesions for which radiation therapy is used. However, superficial x-ray itself can be the cause of the two most irreversible of all skin lesions—radiation necrosis and carcinoma of the skin. Therefore, one must be careful about the use of x-ray. Repeated small doses over a period of years are very dangerous, treacherous, and difficult to control. This is particularly true since patients often shop from physician to physician in order to receive x-ray for some unsightly skin lesion. Therefore, one should never use x-ray for those skin lesions which are chronic and recurring in their clinical behavior. Also, with modern antibiotics, modern knowledge of allergy, and increased knowledge of the normal physiology of the skin, more and more lesions of the skin can be controlled just as well without the use of x-ray. One might well sum up the situation as regards skin diseases in a facetious manner by saying: the quality of dermatologic treatment is inversely proportional to the amount of radiation administered. Another axiom is probably appropriate at this time: although one must take a calculated risk of radiation necrosis in the treatment of cancer, one is never justified in producing permanent damage in the treatment of a benign lesion.

Having dismissed the most important indications for radiation therapy in such a brief manner, let us pass on to discuss a few of a miscellaneous group of conditions for which radiation therapy is either the treatment of choice, or at least a most worthwhile adjunct in their treatment.

Hypertrophy of the lymphoid tissue of the nasopharynx and pharynx is a common condition. Chronic infection and hypertrophy of the tonsils and adenoids are best treated by surgical removal. However, excessive lymphoid tissue in the nasopharynx, especially about the eustachian tubes, can be treated very successfully by irradiation. Either radium or x-ray is a satisfactory method, and due to the extreme sensitivity of lymphoid tissue to ionizing radiations, a small dose of radiation therapy is followed by a remarkable regression of the lymphoid

tissue. X-ray therapy is the treatment of choice for repeated infections of Waldeyer's ring. These infections are manifested by repeated and distressing bouts of sore throat and often cervical lymphadenopathy. The results are prompt and gratifying in most cases, and the dose of radiation therapy required is quite small.

Cervical adenitis of non-tuberculous origin, particularly in children, is most amenable to small doses of x-ray therapy. However, tuberculosis should be ruled out by chest roentgenograms and appropriate skin tests. Tuberculous adenopathy will respond also if caught in the early stages, but care must be exerted to avoid radiation of the apices of the lungs. It is often necessary to exclude by biopsy such conditions as lymphosarcoma, Hodgkin's disease, and thyroid malignancy.

Uterine fibromyomata are usually best treated by hysterectomy. However, one sees an occasional case in which radiation therapy is the treatment of choice. The symptom for which radiation therapy is most valuable is excessive bleeding. Pain and pressure symptoms should be considered as contraindications to irradiation. The patient should be forty years of age or older, but before menopause. The diagnosis must be firmly established, and a dilatation and curettage is usually necessary to exclude endometrial carcinoma. In such cases, a castration dose of radiation to the ovaries will usually result in decrease in the size of the tumor and cessation of the bleeding. Therefore, in patients fulfilling the criteria as listed, radiation therapy should be considered. This is particularly true for patients in whom surgery is contraindicated for some reason.

The rationale of radiation therapy for uterine fibromyomata is not the direct action of the radiation per se on the tumor, but rather is the indirect action of cessation of ovarian function on the tumor. Mature smooth muscle and fibrous connective tissue are both quite resistant to radiation in ordinary dosage. Keloids of the skin, also, will not respond to radiation therapy, since they are composed of mature fibrous connective tissue. However, radiation therapy is a valuable adjunct in the care of keloids. If the keloid is first surgically excised, radiation therapy in small doses will help prevent recurrence. Immature fibroblasts are sensitive to small doses of x-ray, and radiation

therapy immediately following surgery will reduce fibroblastic proliferation.

Subacute thyroiditis is not a common disease but presents a rather typical clinical course. The disease is six times as common in women as in men and usually occurs in the fifth decade of life. The onset is often abrupt and may follow an upper respiratory infection. Sore throat and pain on swallowing, referred to one or both ears, are the usual symptoms. The thyroid is quite tender and feels hard to palpation. There may be some fever and leukocytosis, and the sedimentation rate is quite elevated. Fatigue, nervousness, and weakness are conspicuous symptoms. The treatment of choice is x-ray therapy, and relief of pain and tenderness occurs after two or three treatments. The total dosage used is quite small, and therefore one never expects complications from the treatment.

Tenosynovitis and bursitis are very common conditions, particularly about the shoulder joint. Pain and limitation of motion are frequently very severe. Roentgenograms of the involved joint may show calcium deposition in the involved tendon sheath or bursa. Small doses of x-ray therapy (150 to 200 roentgens repeated for three or four doses) will be followed by adequate and frequently dramatic relief in the vast majority of the patients. A second course is seldom necessary.

Marie-Strumpell disease, or ankylosing spondylitis, can also be treated by x-ray therapy with gratifying results. This disease is most often seen in young male adults. The clinical syndrome includes back pain, limitation of spinal motion, decreased chest expansion, and elevated sedimentation rate. Roentgenograms of the spine are quite diagnostic. Sclerosis, loss of articular margin definition, and irregular narrowing of the joint space involve the sacro-iliac joints and the small diarthrodial joints of the spine. These joints will show bony ankylosis in the end stages of the disease. There is straightening of the spine, and later calcification is noted in the collateral spinal ligaments. X-ray therapy in small doses can be given through rather wide portals to the sacro-iliac region and the spinal column. About three quarters of the patients so treated have satisfactory subjective improvement, and about one half of the patients show good objective improvement, with a decrease in the sedimentation

rate, increase in range of motion, and increased chest expansion. The duration of such improvement varies from a few months to a few years.

Cellulitis can also be treated quite successfully with small doses of x-ray therapy. While it is true that the antibiotics can usually overcome the infection with no difficulty, there are still certain types of infection for which x-ray therapy is indicated and has proven a valuable adjunct in therapy. Carbuncles can be treated better if small amounts of x-ray are given in addition to the usual regimen. The relief of pain is sometimes quite dramatic following irradiation. Furuncles usually need no irradiation, but if they occur around the nose, where the lymphatic drainage is to the cavernous sinus, it is probably wise to use every weapon at our disposal. The same is true of gas gangrene. In such a dangerous infection, x-ray therapy is definitely indicated. Finally, in cases of erysipelas, x-ray therapy should be considered as an adjunct to chemotherapy. The dosage for these various infections is very small—about 75 roentgens per treatment—and is usually given twice a day for about six treatments.

Acute suppurative parotitis following surgery, frequently referred to as surgical mumps, is not a common occurrence, but it is a most painful and quite dangerous disease. It can be treated best by small doses of x-ray therapy, and the treatment usually limits the infection so that surgical drainage is not necessary. A small percentage do go on to suppuration, but these cases are usually the ones in which there is inadequate drainage due to obstruction of Stenzen's duct.

Herpes zoster is frequently accompanied by severe pain, and this is often a distressing, debilitating, and prolonged symptom. It can be treated most successfully by x-ray therapy directed to the involved roots of the spinal cord. Satisfactory relief of pain occurs promptly in the vast majority of the patients.

Probably a few words about the action of irradiation in the treatment of inflammatory diseases is in order at this time. The action of ionizing radiations in the treatment of cancer is much easier to discuss. If sufficient radiation is given it will have a lethal effect on any living cell. The rationale of radiation therapy for cancer is that the cells of some tumors are more sensitive

to radiation than the cells of the surrounding normal tissue. Therefore, the object is to deliver a large enough amount of radiation to the tumor to be lethal and a small enough amount of radiation to the normal tissues so that they can recover.

It is well known that practically all pathogenic micro-organisms are very resistant to radiation and that a dose sufficient to destroy the organism would be many times in excess of what normal tissues could tolerate. The beneficial effects of radiation in the treatment of inflammatory disease can only be explained by assuming that the radiation assists the local tissues of the host in combating the infection. This reminds me of a poor colored patient who presented himself with a note from his referring physician. The note read as follows, "Please treat Mose for his athlete's foot. He is too poor to afford a new pair of shoes, so would you kindly treat his old shoes while you are about it?" Such a request is obviously absurd. These are the ways in which radiation may help in combating infection: First of all, the irradiation may stimulate the release of non-specific antibodies from body

fluids. Secondly, there is a rapid destructive effect on the cellular elements of the inflammatory exudate, and, thirdly, a dilatation of the blood capillaries in the irradiated area rapidly follows small doses of radiation. There is abundant experimental evidence to indicate that all three mechanisms operate.

In summary: There is a wide variety of diseases other than cancer in which radiation therapy is of definite value. Although radiologists recognize the worth of this form of therapy, other members of the medical profession have not been as aware of the possibilities as might be supposed. There are several reasons for this: (1) physicians are skeptical of any measure advocated for so many varied entities, (2) they hesitate to advise it in view of the known permanent damage inflicted in the treatment of cancer, (3) the mechanism of action is not generally understood, and (4) it has not been as widely available as would be desired. With increasing knowledge and increasing availability it is hoped that an increase in the judicious and intelligent use of radiation therapy will result.

OPERATIONS FOR CORONARY ARTERY DISEASE

THE 1954 JEROME COCHRAN LECTURE

CLAUDE S. BECK, M. D.

Cleveland, Ohio

INTRODUCTION

It is an honor to be invited to give this Lecture. My qualifications to give a lecture on this subject are surgical rather than medical. They stem from a large experience in the experimental laboratory and also from a large number of patients who have been operated upon for coronary artery disease.

THE EXPERIMENTAL BACKGROUND

In 1932 work of an experimental nature on dogs was started. At the time this work was begun we had no idea of how to proceed with an experimental investigation, nor did we have any idea of the results that might be achieved. It is needless for me to say

that the experimental work has been difficult and progress has been slow. However, our experiences in each succeeding year gave us something in the way of new thinking and new information on the coronary problem. We had to start from scratch, so to speak, because never before in the history of medicine had anyone tried to change the coronary circulation. No one had tried to improve the circulation. Insofar as I know, the thinking along this line had its beginnings in 1932 in my laboratory. This is not the place for me to record the historical progress of this work. It is too complicated to be set forth in understandable terms and a busy physician scarcely has the time to read it. I shall try to present the important facts that have arisen from this work.

TWO FACTS

Two facts were established by experimental methods. One of these was that surgical operation saved the life of the dog

Delivered before the Association in annual session, Mobile, April 16, 1954.

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after a string was put around a major coronary artery and the artery was tied off. In order to get this information one would have to know what happens when you tie off one of these test arteries in a large number of dogs. Then the operation under test is subjected to ligation of the same artery. Mortality in the two groups is obtained. It was shown conclusively that operative methods reduced the mortality and, therefore, protected the life of the dog. Similarly, information on the size of infarcts was obtained. Of course the dog must live after the test artery is ligated so that the dog has time to develop an infarct. Thereafter the dog is killed, the heart is cut across, and the scar in the heart muscle is measured. It was shown definitely that operative methods reduced the size of the infarct after ligation of a test artery.

ACCEPTANCE OF THESE FACTS

Under ordinary circumstances these facts seem to be difficult to accept. The reason for this is that we do not have the experience that only the laboratory can provide. If each one of us could go into the laboratory and ligate coronary arteries and then see what happens, we would have no difficulty in accepting these facts. However, without this experience we cannot be expected to have a receptive attitude towards this work.

In order to orient ourselves so that we can accept the operative treatment for coronary artery disease more readily, there are certain statements concerning the operation that should be made. For example, it is scarcely necessary to say that operation cannot cure coronary artery disease because it cannot stop the disease in the arteries. Likewise, it is scarcely necessary to say that operation can restore degenerated heart muscle. It is also scarcely necessary to say that coronary artery disease may be progressive, and, even though operation has helped the patient combat the disease, nevertheless the amount of help provided by operation may or may not be great enough to save his life if another severe occlusion occurs. There are several facts that have been learned from the experimental work that are important facts to appreciate in order to accept the idea of surgery. One of these is that 1 to 5 cc. of blood per minute to a dry area in the heart can be of great benefit to the heart. We have proved this by experimental measurements.

Another fact is that the distribution of the blood that goes through the diseased coronary arteries is very important for preservation of the heart beat. In other words, this blood does its greatest good if it is equally rationed to all parts of the heart muscle and it does the least good if it is not rationed evenly because a dry area, or trigger zone, develops in the heart muscle. In the latter circumstance we have patients dying in acute heart attacks. There is plenty of evidence to show that these hearts could have continued to function if the coordinated mechanism had not been destroyed by a small ischemic area. It is with these patients that operation is going to be most beneficial. These are the patients without extensive degeneration. They still have a good heart. The operation is done to protect them from what we call a *mechanism death*. Mechanism deaths are frequently seen in the operating room. They occur sometimes when heart operations are being done. They also occur under anesthesia for any other kind of operation. The heart is usually a good organ and it is a great catastrophe for the surgeon not to be able to restore the coordinated beat before the brain dies. Such deaths can be compared to the turning off of the ignition switch to a good motor car and throwing the key away.

The rationing of blood to all parts of the heart leads to a discussion of intercoronary arterial channels. Under ordinary circumstances these do not exist, and when a blood cell enters a major artery from the aorta its course becomes more and more fixed until the cell finally comes into contact with a muscle cell where it gives up its oxygen, and then it gets away into a vast interlocking system of coronary veins. But while it is in the arterial system it cannot leave one artery and get over into another artery. These intercoronary channels can be produced by operation and it is my opinion that in the future the term "intercoronary arteries" will be commonly used in our medical discussions. It deserves a place of much greater importance than is being given to it at the present time.

While we are on the subject of distribution of blood in the heart we might refer to a second type of death in coronary artery disease. This occurs in those patients in whom the heart tolerates one occlusion after another so that the total inflow of blood becomes more and more reduced. The mech-

anism death does not supervene in these patients. They keep on living until the myocardium gives way and the patient dies in failure. When the patient arrives at this condition we cannot expect surgical operation to help him because the degenerated myocardium cannot be returned to normal. However, in the earlier stages of the disease, operation can prevent early mechanism deaths and in this way can save life. It may be that the operation prevents repeated threats of mechanism death because the disease is frequently progressive. If operation does accomplish this then it may be that death by mechanism has been prevented and delayed to be replaced subsequently by muscle death. If the operation can do these things then it accomplishes much for the patient with coronary artery disease.

TWO OPERATIONS

These operations were developed on the basis of the experimental work. Beck I Operation consists of abrasion of the heart and the lining of the parietal pericardium, the application of an inflammatory agent (0.2 gm. of powdered asbestos) to the surface of the heart, partial ligation of the coronary sinus, and grafting of parietal pericardium and mediastinal fat to the surface of the heart. The Beck II Operation consists of tapping the aorta for red blood and delivering this blood into the venous system of the heart so that it goes backwards to reach the muscle cell. This is done by placing a vein graft between the aorta and the coronary sinus. Two or three weeks later the coronary sinus is partially ligated so that less of this blood runs out into the auricle. We have learned a great deal about both of these operations. Each operation protects the heart. The one operation is more difficult to do and involves two stages. More recently we have been doing the Beck I Operation on most of our patients.

SELECTION OF PATIENTS FOR OPERATION

The most desirable patient for operation is the lean man who has had the disease for a year or more, who has pain but is still able to get around and do some work. In this type of patient the disease may be less progressive than it is in a younger man. In a young person the disease is more likely to be rapidly downhill and the operation may not be as dramatic an improvement as in the older patient. We accept patients who have been totally incapacitated. Some of them have status anginosus. Some of them have

been drug addicts. The only type of patient in whom we refuse operation is the patient whose heart is giving way and the patient is in failure. In these patients it is too late to apply surgical operation. As a general rule the less damage there is in the heart the less is the risk of the operation and the greater is the benefit.

MORTALITY OF THE OPERATION

The mortality has been reduced by experience and by proper selection of patients. So far in 1954 I have operated upon 23 patients,* one of whom died when the chest was opened and before anything was done on the heart. Another one died after the operation was completed. If we exclude the death from thoracotomy alone the mortality rate is 4.5% for this year. In the preceding two years it was 2.8% from thoracotomy alone, 7.5% for the Beck I Operation, and 26.1% for the graft operation. It should be remembered that these patients are severely ill. Many of them plead for the operation as their only remaining hope. Our experience usually has been that the damage seen at operation is far greater than anyone anticipated by clinical examination of the heart. Lindgren's medical mortality in 88 patients (who were acceptable for sympathectomy for angina pectoris but the operation was not done) was 17% the first year and 13% the second year, making a total of 30% in two years. We do not have sufficient figures to say that operation is going to reduce these figures but, on the basis of our results so far, it appears that this might be possible.

CLINICAL RESULTS

A recent questionnaire to the patients operated upon from three months to five years gave the following results. In 33 patients with number I operation there was no pain in 36.3%, less pain in 48.5%, for a total of 84.7%, no change in 9.1%, and more pain in 6.1%. Those better able to work with no limitations were 27.2%, better able to work with some limitations 51.4%, for a total of 78.6%, no change 15.3%, less able to work 6.1%. In 43 patients with the number II operation (graft between aorta and coronary sinus) there was no pain in 39.6%, less pain in 48.8%, for a total of 88.4%, no change in 7%, and more pain in 4.6%. Those

*Eight additional patients were operated upon up to July 1, without mortality.

better able to work with no limitations were 41.9%, better able to work with some limitations 37.2%, for a total of 79.1%, no change in 16.3%, and less able to work in 4.6%.

Four out of five patients get either complete relief from pain or marked reduction of pain. The chances of going back to work are equally good. It is difficult to believe these results unless one talks with the patients. Those of us who understand the experimental benefits accept these results without any mental conflict.

COMPARISON OF THE TWO OPERATIONS

According to our experimental studies the Beck II Operation provides greater protection than the Beck I Operation. Following test artery ligation the mortality is lower and the infarct is smaller. This amount of protection gives us a high standard for accomplishment by operation. This operation requires two stages and special training in order to do it. It has one side effect: this is the arteriovenous fistula. We did complete coronary sinus occlusion in five patients to overcome the effect of the fistula. This was accomplished satisfactorily. We are not certain but the clinical improvement may be somewhat greater after the number II operation. The mortality rate was higher with the number II operation. We are not certain that this increased mortality is due to the operation because this number II operation was done in patients with extensive degeneration of the heart muscle.

One consideration against the Beck II Operation in dogs is that the graft loses contact with the capillary bed after a number of weeks or months. We have had only one opportunity to test this in a human patient who had an open graft and who died subsequently. We injected blood into the graft but none of it came out of the coronary arteries. Blood injected in one coronary artery freely came out another artery. If a similar condition is found in several additional human hearts in the future the conclusion will be made that in the human the graft subsequently loses contact with the capillary bed and that all protection or almost all protection comes from intercoronary arteries. If so, one can readily understand the important position that will be given to intercoronary channels made by surgical operation. The time will come when the term "intercoronaries" will have common usage in medical language.

CONCLUSIONS

1. The blood supply to the heart was investigated by surgical methods. Emphasis is placed upon this approach dealing directly with these vessels. The direct approach stands out in contrast to any other methods in the study of coronary artery disease.

2. Two facts were established indicating that operative methods aid a crippled coronary circulation.

3. A new look at coronary artery disease is presented. This new look makes it possible to accept these two facts without mental conflict.

4. Two surgical operations were developed on the basis of laboratory investigation.

5. The mechanisms of benefit were presented.

6. The application to patients was presented.

7. Four out of five patients are improved by operation.

8. The risk of the operation has been reduced.

Medicine's Future—One of the bright spots on our economic horizon is the possibility of a further decrease in the cost of medical care as we discover relatively simple cures and preventive measures for many of the diseases which today involve much expense. Little do we realize what may lie ahead in this respect. The pattern of illness sets the payment problems. As chronic diseases are controlled in some measure or reduced to short term phenomena, then the task of paying for their treatment will be simplified and many of the difficulties now associated with paying for medical care will be eased, even though new problems may be expected to arise.

With the increasing interest in community health by many groups, we should play a leading part in coordinating such activities and guiding them in the right direction. By this kind of community team work we will know more intimately the problems, the hopes, the desires of our neighbors. In turn, these neighbors will better appreciate their doctors and realize that our desires for the freedom of medical practice are closely tied in not only with their health but with the happiness and liberty of their very lives. During the past year many organizations in Georgia have called upon our Association for advice and I have found that the public has the highest regard for medical leadership in all matters pertaining to health.

What then can we look forward to? Private practice in medicine has been and will be definitely influenced by social trends, some of which have not been under our control. Giving quality service which will stand competition will help to insure a continuation of free enterprise in medical practice, although no major changes appear likely in the near future.—*Harbin, J. M. A. Georgia, May '54.*

MENTAL HEALTH IN ALABAMA

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In a discussion of Mental Health in Alabama, first place must be given to the men in the practice of medicine for their great contributions to the cause. I salute those in research, those in the practice of medicine, and those constantly in search of new drugs for helping reduce the occurrence of mental illness. There are certain illnesses that formerly brought great numbers of patients to the state hospitals, particularly in the South, which have been pretty well eradicated by the men of medicine. I refer to syphilis of the central nervous system and pellagra. Formerly our admission rates for psychotic states due to these conditions were as high as twenty per cent of first admissions. The rate of admission of central nervous system syphilis last year was four per cent, and no case of pellagra with psychosis has been admitted in a number of years.

I also want to thank you for accepting psychiatry as a part of medicine and placing the study of the mind and the emotions in our medical schools. I am sure you recognize that emotional problems play a large part in all physical illnesses. For example, you know that in some cases a skin disorder or a peptic ulcer will not respond to usual medical treatments without some understanding of the emotional problems involved.

Mental problems and mental illnesses are among the greatest blocks to man's progress and comfortable living. It has been determined that a large percentage of patients making calls on doctors are emotionally ill and that their complaints stem from emotional difficulties. This point is one in favor of the old family physician of years ago who knew the family in detail, financially, socially and spiritually, and was not so pressed for time that he did not know what was going on in the family set-up and what stresses and strains were present at the moment.

Mental illness is presently an increasing problem of the states, probably by reason

of its chronicity or failure to respond to treatment within a few weeks, and the fact that the usual citizen is not financially able to plan and provide for care and treatment of a mentally ill member of the family. The cost of mental illness is difficult to compute accurately. The forty-eight states are estimated to spend \$560,000,000.00 annually in capital and operating costs of mental hospitals and services. The Federal Government spends an almost like amount in the operation of psychiatric hospitals for veterans and in pensions resulting from psychiatric disabilities. A conservative estimate of the reduction in national income as a result of the absence of these patients from productive work, and the loss of earnings and goods that otherwise would have been produced is about \$1,750,000,000.00. These costs alone, based on the severely mentally ill already hospitalized, amount to approximately \$20.00 yearly for each man, woman and child in the nation.¹

About fifty years ago there were less than 150,000 patients in public mental hospitals. By 1930 this figure had more than doubled to 350,000, and by 1960 it may exceed 600,000.² One might ask: Why this increase? Does it mean that our present civilization is bringing stresses and strains that make normal adjustment more difficult? Is there a changed environment or situation causing more frequent psychotic breaks and causing more symptom formation such as psychosomatic illnesses and personality disorders? There are several reasons to account for the increase in hospitalization in all state institutions. First, some increase should be expected by our gradual increase in population. Second, economic reasons account for the placement of a mentally ill member of a family in a state hospital. In this busy day, when most people work, there is no one in a family left to supervise and care for a mentally sick person, since the illness is usually one that is rather prolonged. Third, due to the education of the public, no longer is mental illness looked upon as a disgrace or stigma, but is recognized by most people

Read before the Association in annual session,
Mobile, April 15, 1954.

Superintendent, Alabama State Hospitals.

1. Training and Research in State Mental Health Programs, 1953.

2. Ibid.

to be an illness comparable to a physical one. Also, because of advances in treatment of mental illness during and since World War II, which have been freely printed and publicized in newspapers, magazines, radio and television, there is a desire on the part of relatives to hospitalize quickly any member of the family who begins to show evidence of mental illness. There is now, and will continue to be in the future, a marked increase in admissions of elderly people due to the fact that advances in medical treatment have prolonged lives until a period of time is reached when there begins a deterioration of the central nervous system due to arteriosclerosis and senility. It is, therefore, the result of the above mentioned reasons that we can expect continued increase in the population of all state hospitals.

Many years ago state hospitals were largely custodial. Emphasis was placed on economy of operation and little expenditure of state funds. Consequently, living conditions of patients were bad, food was poor, and there was not too much emphasis placed on treatment designed to return patients to their homes as rapidly as possible. In recent years the attitude of the public has changed. Now there is interest in living conditions, food, specific therapies and all those factors designed for greater comfort, better treatment and early release from the hospital. Due to this public change in attitude many states have responded by increasing appropriations for care, treatment and maintenance of patients and by provision of money for the erection of new and more modern type buildings to prevent overcrowding.

THE SITUATION IN ALABAMA

How well is our State making progress in the care of its hospitalized mentally ill and mentally defective? For the benefit of many of you who have recently come into Alabama to practice medicine, let me briefly relate that the state of Alabama maintains three institutions for the care and treatment of its mentally ill. The Bryce Hospital located at Tuscaloosa, with a population of 4,642, and the Searcy Hospital located at Mount Vernon, with a population of 2,346, take care of the psychotic cases; that is, those patients whose mental break is too severe to warrant treatment at home. The Partlow State School for Mental Deficients, located at Tuscaloosa, with a population of 1,285, takes care of the mental defectives

and those with arrested mental development as a result of birth injuries or other organic causes. The Bryce Hospital was opened in 1861, the Searcy Hospital in 1902, and the Partlow State School in 1923. The Bryce Hospital and the Searcy Hospital comprise the Alabama State Hospitals, and receive a direct appropriation from the State, as does the Partlow State School for Mental Deficients.

During recent years, with more public attention having been centered on mental health and mental illnesses, admission rates in all of these institutions have greatly increased. During the fiscal year ending September 30, 1953 the Alabama State Hospitals received 1,467 first admissions, 629 readmissions, and 890 returns from trial visits home, making a total of 2,986 patients coming into the institutions. During this same period 2,447 patients were released from the hospitals, and there were 429 deaths, leaving an increase in population of 110 over the previous year. The Partlow State School during the same year received 147 first admissions, 14 readmissions, and 608 returns from trial visits, making a total of 769 patients coming into the institution. There were released during this period 693, and 24 died, leaving a total of 1,285 present in the institution.

It can be expected that an average increase of 150 in population will occur from year to year, due principally to the fact that the older age group, between seventy and eighty, is increasing because of newer drugs and better medical care, and about one-third of our admissions are now in the old-age group. Most of these cases have a poor outlook for recovery and remain as permanent residents of the hospitals. With this amount of increase in population each year it is necessary that a building program be kept constantly in mind, as new buildings must be erected frequently to take care of the growth in population. Within the last twelve years only two buildings have been erected to provide for additional patients at the Alabama State Hospitals, and consequently, the hospitals are so overcrowded at the present time that we have been forced to place applicants for admission on a waiting list.

For the complete operation of the Alabama State Hospitals and the Partlow State School the State appropriates \$1.85 per day, or \$13.00 per week, for each patient present.

This money is used to operate the institutions completely, including wages and salaries of personnel to the number of 1,204 employees at Bryce, Searcy and the Partlow State School, medical and nursing care of the patient population, and cost of food, drugs, heat, lights, water, and clothing for about three-fourths of the population. All renovation and repairs of hospital buildings also come out of this money. It is difficult to maintain a center for acute, intensive treatment rather than a place of custody on this appropriation. Unfortunately, Alabama ranks near the bottom in comparison to monies allotted by other states for the care of the mentally ill. If the State is to provide satisfactory living conditions and more intensive therapy for the patients in our already overcrowded institutions, it will be necessary that we have more buildings and increased maintenance appropriations for the care of the patients. We are making every effort to educate our citizens about mental illness in order that they can demand more of their legislators in making provision for appropriations to provide sufficiently for adequate treatment and living conditions.

Under the Mental Hygiene Division of the State Health Department, mental hygiene clinics are being established throughout the State as rapidly as funds and trained personnel will permit. Education of the public, with organization of County Mental Health Societies, is rapidly progressing.

We are using all of the kinds of treatment furnished in other state hospitals. We are admitting around 2,200 patients annually, and only increase our population about 150 each year despite the fact that one-third of our admissions are elderly people who stand little chance of rehabilitation. We are handling this problem of the mentally ill in Alabama at low cost to the State, but at the same time treatment and living conditions are not what is desired.

We are in dire need of additional help on our staff, such as psychiatrists, clinical psychologists, psychiatric social workers and psychiatric nurses. These people cannot presently be obtained. There are none. At least not enough of them to serve all of the State Hospitals. With what we have I think we are doing a good job, but there are not enough of us. We are concentrating our attention on first admissions, but at the same time trying not to forget those who have

been in the hospitals from two years up to fifty years. We have increased our occupational and recreational therapies beyond any of the other therapies, and they have been a great help in the socialization of the patients. We have improved the comforts and living conditions of the patients in the last few years.

We are grateful that public attitude is demanding better care and treatment. This is reflected in the increased appropriation that has occurred since 1946. At that time we were receiving \$7.50 per week per patient, which amount was all for the maintenance and care of patients. This has been increased by each administration since that time and the present administration gave to us all that it possibly could, considering that the appropriation to the State Hospitals and the Partlow State School comes from the General Fund, which, as I understand, is a fixed amount from year to year, seldom varying from \$20,000,000.00 to \$22,000,000.00, out of which comes appropriations for the administration of the State Government, the State Department of Public Welfare, and the State Hospitals.

The present administration increased the appropriation for the State Hospitals from \$11.00 to \$13.00 per week, and provided for allocation from the Building Commission of \$1,000,000.00 for one new building and renovation and repair of old buildings. Further, a bill was passed by the last Legislature requiring certain legally responsible relatives to pay for the maintenance of patients. This bill provides for full pay or part pay, depending on the financial status of the patient or the legally responsible relatives. This legislation should add to the finances of the Hospitals since prior to this bill less than 250 of 8,000 patients hospitalized in the state of Alabama were being supported by relatives, leaving almost the entire burden to the State.

PLANS FOR THE FUTURE

The Mental Health Programs of the Forty-Eight States, published in 1950, states:

"Government today is being called upon to improve existing services, to increase the scope of these services, and to add new services not heretofore provided by public agencies. This is especially true in the field of mental health, where improvement and expansion are being urged as never before. State governments are faced with insistent demands for both increased facilities and higher standards of care and treatment for the mentally ill. An adequate state program for

the care and treatment of the mentally ill needs money and a great deal of it, but it begs the question to say that we have no problem in this field that cannot be solved with money. A more practical approach is to ascertain the purposes for which money is required, the amount of money needed for them, and how it can be expended most effectively."

This increase in admissions in all of the state hospitals is becoming a great problem. The Governors' Council of the Forty-Eight States has been vitally interested in the mounting costs of mental illness to the states, and for the past two years has been seeking means to combat it. At the Council meeting in 1953 it was decided that attention should be centered on the training of personnel, and on research and prevention. Therefore, all of the states are now interested in setting up ways and means whereby more people, psychiatrists, clinical psychologists, psychiatric social workers and psychiatric nurses can be trained for work in state hospitals and mental hygiene clinics. This plan calls upon each state to do what it can. If a state is too poor it must join a sister state or states in setting up a regional training center.

I believe that this program is sound. We need more top personnel in the treatment of the mentally ill, and I believe that the states will have to provide a training center for personnel and for research and more mental hygiene clinics throughout the state as soon as personnel is available. This program I believe after a period of time will materially reduce the admissions to state hospitals and give better service to those who are admitted.

In conclusion, I want to state:

1. There has been progress in the knowledge of mental illness and its treatment during the past two decades.

2. The public attitude has changed toward mental illness, and more emphasis is being made on the need for state governments to provide for adequate care and treatment and provision of modern buildings.

3. State governments are responding as adequately as state funds will permit.

4. More mental health societies in the various counties are teaching the public about mental illness and making a mental patient more acceptable in the community after he has received treatment.

5. All out support should be given by the citizens of the State to the Governor in the program presently operating to provide more trained personnel, research and prevention.

Emotionally Induced Illness—The greatest obstacle to the successful treatment of emotionally induced illness is the factor of time. Most physicians feel they do not have enough time to deal thoroughly with a psychogenic disorder. Usually patients with illness of this type resist any implication that the symptoms may be of emotional origin and want a kind of therapy that can be seen or felt, such as injections or prescriptions. And although it is easier to give that kind of treatment than to spend the necessary time to deal thoroughly with the patient's problems, in so doing a physician bolsters the patient's resistance to a kind of therapy that might help.

Perhaps the problem of time is exaggerated. It is often astonishing to see how much can be accomplished with young patients who have minor emotional difficulties in a half hour devoted to explanation, reassurance and advice. Similar patients treated for long periods merely by prescriptions, injections, elimination diets and the like, with but little or no benefits, have had much more of the medical profession's time and with little to show for it. Wolf has commented on this question in reporting the case of a young diabetic person who was admitted to the hospital some thirteen times a year in diabetic acidosis. After treatment of the emotional component which existed in this patient, hospitalization was not once necessary during the succeeding three and one-half years—a striking example of what can be done, by spending time on the patient's life stresses, toward saving much more of physicians', nurses' and laboratory technicians' time over a long period.

The first step in treatment is to explain clearly that although the symptoms are not caused by any serious abnormality they are real. Nearly always the patient fears that the doctor will consider the symptoms imaginary. A physiologic explanation of symptoms is helpful, with a description of how exaggerated nerve impulses resulting from tension or anxiety travel to the intestinal tract and cause motor disturbances which produce distress. Often the patient is worried that these abnormal conditions may lead to cancer or ulcer, and reassurance is important. However, reassurance that the patient has nothing seriously wrong must be supplemented with other measures. A positive statement by the physician that the patient can get well often has a beneficial effect. If this has been preceded by a thorough clinical examination which gives the patient confidence in what the doctor has to say, it becomes an important factor in therapy. It is also of fundamental importance that the patient be taught to accept, and to live with, his physical distress. If this can be accomplished, the symptoms nearly always begin to lessen in severity.—*Halsted, California Med., June '54.*

EARLY AMBULATION

B. F. THOMAS, JR., M. D.

Auburn, Alabama

My interest in this subject developed as follows: Major Max Chamberlain, the Surgeon of ASCOM in Korea, 1946, did a cholecystectomy on the Commanding General, and the next day had him up walking. This was quite a surprise to me as previously the patients upon whom I had either operated or assisted with were kept flat in bed for at least seven days. I knew that Maj. Chamberlain was an excellent surgeon and that if he was doing this it would be worth investigating, especially since he was audacious enough to do it on a General. Shortly after this I went down to a small station hospital where early ambulatory treatment was being practiced by Dr. Herbert Sloan. The first thing I noted about these patients was that most of them did not complain about gas pains, there was no abdominal distention, and enemas were practically unheard of. I noticed also that the nursing problem under poor conditions was markedly relieved. I also knew that this practice was not indicated by Army directives, but with Dr. Chamberlain as Surgeon for the area I felt that if anything were said regarding the practice nothing would be done about it. I, therefore, began to do the same thing Dr. Sloan was doing.

Spinal anesthesia was usually the anesthetic used. The patient was kept flat in bed for 12 hours. Then he was made to stand beside the bed, preferably in the presence of the doctor who had operated on him, and allowed to move around the edge of the bed for about 5 minutes. The next day most patients were able to walk the length of the ward and by the second day go to the latrine and mess hall. No pulmonary complications were noted in any of these patients. However, the number was not sufficient to justify a definite conclusion. The patients were willing to do this, except for a few who had fears or psychoneurotic tendencies which were overcome by reassurance or persuasion. Previous to this I had always ordered an enema on the third day on all appendectomies. This was unnecessary in any of these patients. The bed pan was not a necessary evil and for this reason alone I would prefer walking early if I had to have an abdominal operation.

The history of early ambulation goes back farther than you would think. In 1899 Emil

Ries advocated early walking in a paper printed in the Journal of the American Medical Association. Boldt, in 1907, also reported a series of cases subjected to early ambulation. Numerous reports from Europe and South America appeared in the late twenties and early thirties.

Leithauser first practiced it in 1938 after one of his obstreperous patients had gotten up right away. This was an appendectomy and the patient recovered so rapidly that Leithauser thought this form of treatment worth investigating. He then instituted early ambulation for all appendectomies. The regimen was followed for 2½ years; then it was decided to do this on all abdominal operations because the patients who had had appendectomies had done so well. In his book he reports about 2,000 cases treated by having patients arise within four hours after operation, cough several times while standing beside the bed, and then get back into bed. This was repeated several times during that day so that walking could be instituted within the first 24 hours.

Fear of eventration has been one of the greatest objections to early activity. This has been shown to be groundless. In 1943 Newburger reported experiments on rats showing the beneficial effect of exercise on wound healing. The clinical evidence in Leithauser's series corroborated this. There were no wound disruptions. There were two postoperative hernias.

Leithauser emphasizes the fact that it is a necessity for a postoperative patient to have balanced rest and exercise. When either exercise or rest is excessive and prolonged, harm results. Healing is prolonged in the excessive use of either. Tolerance is the guide to the amount of exercise required. The average patient is able, by the second or third out-of-bed period, to walk some distance to the toilet and thus avoid the bed pan.

He also emphasizes that the exercises be started as soon as the patient recovers from the anesthetic, usually about two or three hours after operation. This is done to prevent postoperative complications. The day of the operation is the day the relative stasis in vital systems is initiated. Cutler has stated that 50% of all postoperative com-

plications (pulmonary) are established by the end of the first day and 90% by the fourth day. Bauer has stated that in most instances thrombosis is initiated during the first 24 hours following operation. Barker and his coworkers have reported the actual occurrence of fatal pulmonary embolism on the first postoperative day.

It has also been shown that the vital capacity of the lungs is decreased by abdominal operations. In upper abdominal incisions this reduction is more marked due to several factors, including vertical incisions and direct trauma to the diaphragm. In recumbency the vital capacity of the fully expanded lungs of the average adult is diminished by 340 cc. Churchill and McNeill have shown that changes in vital capacity are in direct correlation with the frequency of postoperative pulmonary complications. Vital capacity studies were made in over 500 patients subjected to early ambulation. This capacity returned to normal in one-half the time it required the bedrest group.

In the 2,000 cases Leithauser reported there was no instance of pulmonary embolism. Two patients developed thrombo-phlebitis. These two occurred early in the series and he thinks they could have been prevented if leg exercises, as now used, had been employed then.

The postoperative respiratory physiologic and pathologic changes are: reduction in movement of the diaphragm, and thoracic and abdominal muscles; inhibition of the cough reflex, excessive mucus secretion, bronchoconstriction, venous engorgement and edema of the mucous membranes, pulmonary embolism, and hypostatic congestion and collapse. The postoperative circulatory complications are thrombophlebitis and pulmonary embolism. Chief physiologic causes are decreased cardiac output, peripheral vasospasm, slowing of the venous flow in the extremities, and damage to the intima of the veins. Postoperative gastrointestinal disturbances are due to direct trauma to the gastrointestinal tract producing loss of tonus and decreased peristalsis. Early ambulation will tend to counteract these physiologic and pathologic alterations. Leithauser states that contraindications to early ambulation are few. Shock is a definite contraindication. Short confinement to bed and resultant earlier discharge from the hospital are important economic factors.

In conclusion, I think from my own per-

sonal experience that early ambulation is good treatment provided common judgment is used in deciding whether you are to treat a case this way. I definitely do not think every case should be treated with early ambulation. Since July 1947, early ambulation has been used by me in approximately 225 private cases.

Back Pain—The patient having chronic low back pain usually presents a history of trauma, oftentimes mild, such as extending the spine while washing the face or tying the shoes. The pain may be localized to the low back area or may be referred into one or both extremities with or without sensory and reflex changes. Pain is usually increased by active motion of the spine or jarring, and may be increased by coughing, sneezing, defecation or climbing stairs. A detailed history is invaluable. Was the onset sudden or gradual? Was the spine flexed or extended at the time of onset? Where was the exact site of the initial pain? Did it remain localized or was it referred? Is it increased by activity? Is it relieved by recumbency or local heat? On examination one should note and record the exact site of pain, the appearance of the spine in erect weight-bearing position, the presence or absence of flexion of the hip or knee when standing, of muscle spasm in recumbency and on active spinal motions, of localized spinal rigidity, of pain on pressure over the sciatic notch and the course of sciatic or posterior tibial nerves, of atrophy of thighs or calves, the response to straight leg raising tests, and all motor, sensory or reflex changes which may be found in the lower extremities.

X-ray studies taken in antero-posterior and lateral views often show no evidence of bone, joint, interspace or other pathology. Oblique views are at times helpful. If fracture, dislocation, spondylolisthesis, interspace narrowing or other definite findings are demonstrated, they may aid in confirming our clinical impression, but when negative the diagnosis must be made from the history and clinical findings.

If the underlying pathology is felt to be arthritis, sprain, ligamentous tear, or intervertebral disc injury, conservative treatment consisting of absolute bed rest on a firm mattress with underlying boards in position of comfort, using local heat and massage as required for pain, should be initially employed as a means of reducing the period of disability. If fracture of the transverse processes is found, some type of external support such as adhesive strapping, a ribbed corset or even a body cast may be necessary but under no circumstance should the patient be told, "You have a broken back." To do so invites unjustified fears and prolonged disability.—Robertson, J. Tennessee M. A., June '54.

Public health is found not in the health department but in the mental attitudes, customs, and set of values of the people. People need to become concerned rather with their community as a whole than with public health.—Editorial, J. A. M. A., April 24, 1954.

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THE MONTH IN WASHINGTON

The controversial health reinsurance issue has come back into prominence, and under conditions that make the whole question about as complicated as it can get. The bill would have the federal government underwrite voluntary health insurance plans if they agree to experiment with risks not usually covered.

Although this measure is a major part of President Eisenhower's health program, it became bogged down in the House Interstate and Foreign Commerce Committee when widespread opposition developed. Then the committee chairman, Rep. Charles E. Wolverton (R-N. J.), turned to one of his favorite subjects, a plan for federal guarantee of private loans to health facilities for construction and equipment. This bill, however, was not supported by the administration.

In an effort to placate the opposition, Mr. Wolverton offered to eliminate a number of objectionable features from the mortgage guarantee bill. At the same time there were reports that he proposed to merge this bill with the administration-supported reinsurance bill. Meanwhile, Henry J. Kaiser made two special trips to Washington to help out his friend, Mr. Wolverton, by putting his weight behind the mortgage loan idea. That was not surprising, inasmuch as Mr. Kaiser had helped to draw up the bill, which would greatly benefit health centers such as those started on the West Coast by the Kaiser Foundation.

Mr. Kaiser, saying he was producing a film to promote the mortgage loan plan, went to the unusual extent of making a direct appeal to Washington news correspondents to write favorable copy about the bill.

While these Wolverton-Kaiser maneuverings were taking place on the mortgage bill, it became apparent that President Eisenhower was not ready to abandon the reinsurance idea. He called a number of executives of major life insurance companies to the White House to try to impress them with the merits of reinsurance and in other ways indicated he still wanted to see the bill passed this session. Secretary Hobby, whose original testimony for reinsurance had been restrained, also joined in the last-minute campaign. But it appeared the tangle might be too complicated even for Mr. Eisenhower to unravel before adjournment.



MRS. JOHN M. CHENAULT
President of the Auxiliary
1954-1955

Most other parts of the Eisenhower health program were moving through Congress, even though some were off schedule. (Of the major bills, AMA opposes only reinsurance.) Legislation to expand the Hill-Burton hospital construction program cleared what might have been a serious obstacle when it was reported out by the Senate committee. Compared with the House bill, the Senate bill gave more discretion to state health authorities in use of funds for constructing facilities for the chronically ill, for nursing homes, and for health centers. However, the Senate would require that funds earmarked for rehabilitation centers be used for the stated purpose. The Senate also would rule out the possibility of U. S. grants to centers devoted solely to treatment. Unless the facility could qualify as a diagnostic center, or a diagnostic-treatment center, it could not be eligible under the Senate bill. This safeguard was not in the House bill.

Of the remaining legislation of interest to the medical profession, the status at this writing was about as follows:

The doctor draft amendment, to strengthenen the Defense Department's hand in dealing with physicians who might be security risks, had passed the Senate, been reported by the House committee, and was almost a law. Also about to be enacted was a provision liberalizing medical expense deductions from taxable income. The long-dormant bill to transfer responsibility for Indians' health matters from the Indian Bureau in the Interior Department to the Public Health Service in the Department of Health, Education, and Welfare was pointed toward enactment, but might possibly be held up by objections of Senators from a few western states. The Interior Department had dropped its original objection.

The House-passed social security bill, with the compulsory coverage of physicians eliminated, was before the Senate Finance Committee, where anything could happen. Two bills of medical interest already had been passed by both houses and signed into law. One prohibits the shipment of fireworks into a state where fireworks are illegal, and the other relieves Army medical officers of the technical responsibility for supervising preparation of food.

A reassuring note was sounded by President Eisenhower when he forwarded to Congress the controversial International

Labor Organization convention on minimum standards of social security with a recommendation that it not be ratified. His message said most of the points—including a suggestion for socialized medicine—were not proper subjects for the Congress to deal with.

CORRESPONDENCE

VETERANS ADMINISTRATION
Washington 25, D. C.

May 4, 1954

Dr. Douglas L. Cannon
Editor-in-Chief

The Journal of the Medical Association
of the State of Alabama
537 Dexter Avenue
Montgomery, Alabama

Dear Dr. Cannon:

The editorial, "The Medical Profession's Stand on Veterans Administration Medical Care," which appeared in the January 1954 issue of the Journal of the Medical Association of the State of Alabama, has just come to my attention.

Because virtually all of the statistics, and many of the statements used in this editorial are identical with statistics and statements I have seen in other articles, I assume the author of your editorial used this previously published material in the belief that it was accurate.

Actually, the editorial is so replete with misinformation that I believe it would be a disservice to readers of the Journal if no effort is made to correct the record.

Here are some statements used in the editorial, followed by factual comment:

The editorial states: "Current legislation entitles any war veteran to medical care and hospitalization through the Veterans Administration, regardless of the origin of his disability or his ability to pay."

There are two inaccuracies in this statement. The description "any war veteran" implies that the VA is or will be providing medical care for *all* veterans. The phrase "regardless of . . . his ability to pay" just can't be reconciled with the law.

The law stipulates that nonservice-connected cases may be hospitalized *if* a bed is available, and *if* the veteran states under oath that he cannot defray the cost of hospitalization.

Consideration of these five factors should make obvious the fact that it is not possible for the VA to provide hospital care for all veterans:

(1) The law itself does not authorize care for all veterans.

(2) At the present time there are nearly 21,000 veterans (nonservice-connected cases) who have been determined eligible for hospitalization, but who can't be admitted until a bed becomes available.

(3) At any given time VA hospitals can accommodate no more than one-half of one per

cent of the veteran population (20,685,000 as of March 31, 1954). In the course of one year VA hospitals could provide care for no more than two-and-one-half per cent of the total veteran population.

(4) Despite the gradual availability of new beds, the VA is admitting somewhat fewer patients because of the increasing long-term or chronic nature of the VA patient load.

(5) It is probable that on any given day there are as many, if not more, veterans in private, state, and other non-VA hospitals as are in VA hospitals. (Would this be true if "any war veteran" could be admitted to VA hospitals?)

The editorial states: "A veteran with a non-service-connected disability must *merely state* that he cannot afford private medical care in order to be admitted for medical care." (Italic supplied.)

All VA hospital employees operate under this strict instructional requirement: "In those instances in which an (ability to pay) oath is required, the person who administers it will see that the questions and answers are read by or to the applicant and will check the appropriate block to indicate the action taken." The hospital official handling the application must *certify* on the face of the application that all of the questions and the answers thereto have been duly read by, or read to, the claimant.

Furthermore, all affected applicants are required to fill out an application addendum listing property holdings, income, assets, and other fiscal data.

Both the application proper and the addendum carry distinct warnings to applicants that a knowing false statement of any material fact in, or in connection with, the application subjects the violator to possible forfeiture of veterans' benefits, and prosecution in a United States Court. Under VA instructions, the warnings must be specifically called to the applicant's attention in all cases, except where the applicant is mentally incapable of understanding, or is in an emergent condition.

The editorial states: "... it is the opinion of men of the profession that the *remaining* groups of veterans whose disabilities are totally unrelated to military service should not continue to receive 'free' medical care and hospitalization from the government."

The words "medical care and hospitalization" indicate nonservice-connected cases are eligible for VA clinic care as well as hospitalization. Out-patient clinic treatment is limited under the law to service-connected cases.

This "opinion of men of the profession" apparently is not shared by the American Medical Association. The AMA, taking cognizance of present inadequate national facilities, has officially gone on record in favor of continued treatment in VA hospitals of nonservice-connected neuropsychiatric, tuberculosis and certain chronic neurological cases. It is interesting to note that nearly 60 per cent of all VA beds are devoted to care of veterans suffering from mental illness or tuberculosis.

The editorial states: "The provision of 'free' medical care and hospitalization to *nearly one-half of all employable males in the country* is a giant step toward a complete federal health program." (Italic supplied.)

Here the earlier implication that all veterans can obtain VA hospitalization has now become an editorial statement of fact. (Please refer to comments following first quoted statement from the editorial.)

The editorial states: "In the past eight years, the cost of the VA medical program has increased 600 per cent."

In Fiscal Year 1946 the VA medical program, including clinic and domiciliary as well as hospital operations, cost \$226,259,167. The appropriations for the current Fiscal Year, 1954, when the VA is operating nearly 70 more hospitals and many more clinics, is \$702,179,600. This is an increase of \$475,929,433, or 210 per cent, not 600 per cent.

In view of the generally rising costs of all commodities and services over the years, the increase in VA medical costs should—to have significance—be measured against some other related factor, such as national income.

The percentage of the national income expended for hospital and medical care of veterans, including State and Territorial Homes, and VA Domiciliaries was 0.16 per cent in 1922 (when the program was in its infancy). This had increased to only 0.22 per cent in 1953 (the last year for which statistics are available).

The editorial states: "The Congress voted \$747,415,264 to finance the VA medical program during 1953."

The total obligations for the VA medical program in Fiscal Year 1953 amounted to \$674,594,000.

The editorial states: "The VA is currently operating 154 hospitals with a total of 116,986 beds."

The VA currently is operating 169 hospitals with a constructed bed capacity of 125,723 beds.

The editorial states: "If current veterans' benefits are continued, another 148,000 beds ultimately will be needed. The expansion program currently calls for 182 additional hospitals with 135,217 beds, and 17 domiciliary units with 17,443 beds." (Italic supplied.)

This is a fantasy of tremendous proportions. Here are the facts:

(1) The complete VA hospital program calls for 174 hospitals with a constructed capacity of 128,342 beds. This is five (not 182) more hospitals, and fewer than 4,000 (not 135,217) more beds than the VA presently operates. The VA has no plans, and has made no request for construction authority beyond these totals of 174 and 128,342.

(2) The purported expansion program calling for an additional 17 domiciliary units is entirely fictional. The VA has been operating 17 domiciliaries for the past four years, and has no plans whatsoever for building any additional domiciliary facilities.

The editorial states: "The total cost of such a program, computed at \$20,000 per bed, will be around \$3,000,000,000.00."

The figure of \$3 billion dollars apparently is arrived at by multiplying the reported expansion program total of beds (135,217 plus 17,443) by an arbitrary cost-per-bed figure of \$20,000. The fact, as explained above, that no such expansion program is contemplated makes immediately obvious a multi-billion-dollar error in this editorial statement. And, to set the record straight, it might be well to add that the editorial's cost of \$20,000 per bed is likewise out of line. The average cost per bed for all VA hospitals constructed since World War II is \$16,800.

The editorial states: "Financing the operation of these added facilities would require the annual appropriation of a sum of money of astronomical size."

Inasmuch as "these added facilities" are largely imaginative, it is apparent that this statement is untrue. Actually, financing the VA medical program, including domiciliaries, clinics, and administrative costs, as well as hospitals, now takes only about one cent of the national tax dollar. Because the VA has nearly achieved its total planned capacity, the future cost of the VA medical program will rise, percentage-wise, only slightly over the present expenditure level.

The editorial states: "Such a gigantic 'free' medical care program, if allowed to continue, would obviate the fight against socialized medicine in the United States, it would be an established fact."

In my earlier comments I believe I have established that the "gigantic" VA medical program is by no means the giant operation the editorialist would have his readers believe.

Considering the VA hospital program from the standpoint of its actual present and contemplated size, and the mission it performs, is it a forerunner to socialized medicine, or a deterrent?

The VA has only about 10 per cent of the total hospital beds in the United States, and employs on a full-time basis only about two per cent of the nation's active physicians, and about four per cent of the nation's professional nurses. I have already pointed out the small percentage of just the veteran population that can be cared for in VA hospitals at any one time, or in the course of a year.

Although the VA system constitutes but a small segment of the nation's total health resources, I believe it serves as a strong bulwark against the inroads of socialized medicine.

Testimony by medical authorities before a committee of Congress less than a year ago disclosed a nationwide hospital shortage of 336,000 mental, 262,000 chronic, 219,000 general, and 31,000 tuberculosis beds.

In view of the already existing shortage of hospital beds, it is well to consider the effect of turning back on the various communities the thousands of nonservice-connected VA patients, including the many thousands of patients suffering from mental, tuberculosis, and other chronic

illnesses. It seems to me that turning these veterans out of VA hospitals would do far more to generate a demand for socialized medicine than it would to deter such a demand.

Considering the misinformation contained in the editorial, I believe it is only fair to ask that this letter be published in The Journal.

Sincerely,

(Signed): J. T. Boone
Vice Admiral (M. C.) U. S. Navy Rtd.
Chief Medical Director

The Medical Record In Court—The medical record is an important aspect of the proof of a plaintiff's or defendant's case. Its inherent importance is enhanced by the fact that usually the hospital or doctor is not interested in the result of the litigation and is in the same relative position, therefore, as the innocent bystander at an accident. Since the latter is not involved in the controversy, his word is thought by jurors who have no comprehension of the fallibilities of even honest testimony to be entitled to more credence and weight than the stories of the participants in the litigation. The hospital and physician and its or his records bear the same exalted position in this regard as the testimony of the innocent and disinterested bystander.

Factually, the record may be important in several ways. In the first place, it contains a source of description of the nature and extent of the plaintiff's injuries. These are often of importance; for example, matters which do not seem important from the point of view of therapy are often of importance from the point of view of the litigation. That is to say, to the doctor, the number of stitches taken in a suture is perhaps of no great importance but it impresses the jurors to have testimony that the repairs upon the victim's anatomy required 34 stitches. Moreover, the locus of the injuries often tends to refute and rebut or to corroborate the victim's story of where or how he was hurt.

The medical record also is of importance because it serves as a guide to prognosis, which often is an important aspect in the proof of a plaintiff's or a defendant's case. The plaintiff is entitled to recover all of the damages which he has suffered as a result of the acts of the defendant and included in these are the damages which, if these can be proved by a preponderance of the evidence, the plaintiff will suffer in the future from injuries sustained. Hence, questions of prognosis often are involved in determining the amount of the verdict or judgment. These forecasts of prognosis derived from the hospital or doctor's report are at times inadequate or insufficient to prove future damages and the plaintiff or defendant, therefore, is required by the necessities of the situation to present additional medical evidence. Often this takes the form not only of the clinical examination of the party concerned and the rendering of an opinion based upon that examination but, also, on hypothetical questions asked of the physician expert on the basis of facts adduced from the hospital record.—*Harrington, Rhode Island M. J., Oct. '53.*

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

AT HOME, TOO

W. A. Dozier, Jr.

Director of Public Relations

The following remarks by Mr. Mark C. Schinnerer, Superintendent of Schools, Cleveland, Ohio, appeared in a recent issue of the Southern States Industrial Council Bulletin.

In the article Mr. Schinnerer is writing primarily for teachers, but everything he has to say is applicable for parents. Too often one hears the complaint that the schools are failing in their job of teaching the American system of doing things. Perhaps this is true in some instances. At the same time, have not we as a people forgotten that teaching of future generations begins at home? Have we not tried to demand that the whole job be done by the schools? Have we not in many instances shirked our own duty?

Mr. Schinnerer's remarks which follow are applicable for home use. We can all use his guideposts in our everyday conversation, and in that way we can do our bit toward insuring somewhat sounder thinking than seems evident at present.

"This is about economics. This is about the teaching of economics, not directed just to teachers of economics, but to all teachers. It is directed to all teachers because the job that needs to be done cannot be done by just the teachers of economics.

"There is a colossal oversupply of people in my country who either never discovered some of the basic principles of economics or think that the economic laws have been repealed. We hear much wailing that the schools have failed in this regard and the cry is for required courses in economics. We have failed—in school and out—but the answer is not in required courses. The answer, in my opinion, lies in a continuous effort to inculcate in children, from kindergarten through high school, some basic and very simple facts.

"There are three things which almost anyone can be brought to understand and if these three are ingrained, we can leave

the more complicated principles to the experts.

"1. You can't get something for nothing. Too many think they can. That is the basis of gambling and most speculation. Giving a higher mark in school than is earned is proving that the student can get something for nothing. That is bad business. When parents urge no homework, they somehow expect something for nothing. One gets out of school work about what he puts into it. Only parasites get something for nothing.

"2. You can't spend more than you have and remain solvent. The longer such a system is followed, the more impossible it becomes to keep afloat. Know anyone who trades in a mortgaged car on a new one and has both a newer car and a bigger mortgage? The woods are full of such people. It is bad economics. It's somewhat like drug addiction. This applies equally to a person, a business, or a government.

"3. You cannot equalize ability by a handicap system. It is wrong to expect as much from a youngster with a low I. Q. as is expected from a youngster with a high I. Q. It is also wrong to set up handicaps so that they come out even. Leave that for the exclusive use of the racing stewards. Competition still has a place in America, thank goodness, and I don't want it any other way.

"In every school day there are numerous incidents in each student's school experience when these three fundamentals are present. Just repeatedly bringing them to the pupil's consciousness will work wonders. If all our people accepted these three economic axioms and lived by them, we would live in an economic paradise."

NEXT MEETING
OF THE ASSOCIATION
MONTGOMERY
APRIL 21, 22, 23, 1955

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

AGE AND ACHIEVEMENT

Soon after his 55th birthday, Alabama's own William C. Gorgas wrote to his mother from the Isthmus of Panama, where he was then engaged in his great work of driving disease and pestilence from that cursed area and making it possible for American engineers and American workmen to build the great Panama Canal: "At fifty-five a man can feel a perceptible decline in his physical vigor. I can still stand more than most men I come in contact with but not what I could fifteen years ago. I can see very plainly that I have begun a decline in life that at some time must end in death."

General (then Major) Gorgas was not by any means the only person who has become conscious of a physical let-down at or about the mid-fifties. To some that realization comes earlier than that, to some it comes later. But few people indeed have been able to boast of the same vigor, "pep" and strength while in the fifties that they enjoyed in such generous measure a decade or two earlier. To most people that is a sobering experience.

Fortunately, with Dr. Gorgas as with a great many others, that let-down in physical endurance did not mean an end of achievement. In his case—as also in the case of others—his best work still lay ahead of him. His task of making the jungles and swamps of Panama safe for humans was by no means completed in 1909. Indeed, if he had proved less capable as a disease-fighter during the next few years than he did, it is doubtful whether the Canal would have been dug, at least for a long time. After the first ship made its memorable passage from the Atlantic to the Pacific and the canal began to be used by ships of all nations, he went on to other triumphs. He was successful in robbing pneumonia of most of its terror for the half-naked, sweaty, black-skinned gold miners of South Africa. As Surgeon General of the Army, he became commander-in-chief of all this country's

uniformed medical men during the first World War, making the U. S. doughboy less likely than ever before in wartime to become a victim of disease. After that wartime service came to an end, he brought health and healing to the disease-cursed population of two or three South American countries. And he was on his way to what he hoped to make the climactic triumph of his career—the routing of the yellow fever mosquito from its last major stronghold in West Africa—when his old enemy, disease, brought an end to both his career and his life in London.

As already pointed out, any number of others have also achieved fame after reaching and passing middle-age. Many others, already famous or at least well known, have gone on to even greater achievements after passing what is usually regarded as one's physical prime. Many indeed of the world's great men and women have attained their achievement peaks even after they reached old age.

Titian lived to his hundredth year. And some of the finest masterpieces he ever painted were done just before his death. Henry Brougham (Baron Brougham), British statesman, scholar and author, was active in the affairs of his country and influential in its counsels when he was 80. The voice of John Singleton Copley (Lord Lyndhurst) was heard frequently and strongly in the British House of Lords after that one-time Lord Chancellor had become a nonagenarian.

Goethe, the famous German poet and author, was working hard and turning out some of his best work at 80 and past 80. Certainly the finest poems in the German language include some he composed after reaching the three-quarter century mark. Herbert Spencer had a nervous breakdown some time before his death at 83 but was again hard at work before the end came. It is remarkable that occasionally his illness was so grave that he could write very little at a time and that he mastered it so successfully. Carlyle, one of the greatest of English writers, did some writing as a comparatively young man. But it was not until he

was past 40 that he began to show the genius that the whole literary world was to recognize and honor. It was not until he was 63 that the first two volumes of his monumental six-volume *Frederick the Great* were published. He was 67 when the third and fourth volumes appeared and 69 when the work was concluded with the appearance of the fifth and sixth volumes.

Lord Macaulay, whose *History of England* established him as one of the world's great historians and whose political career brought him renown in statesmanship, was in his late 40's when the first two volumes of that great work were published but considerably older when the last two appeared. Much older was the famous botanist, Sir Joseph Hooker. Humboldt was nearly 90 when he completed one of his most important works. Other important writing of his was done after he was 60.

The famous American author, Oliver Wendell Holmes, is said to have made an unusually successful job of growing old. Someone has said of him that he was never unhappy all of his life, in youth, middle age or old age. He used to say himself that he could learn twice as fast later in life as when he was a comparative youth. The reason for this, he explained, was that increasing age added to his powers of concentration. Much of his brilliance in old age was transmitted to his distinguished son, Oliver Wendell Holmes, Jr., who served so long and so outstandingly on the U. S. Supreme Court.

Henry Wadsworth Longfellow remained in comparative obscurity until he was 48, when he became the author of the classic *Hiawatha*, dear to the heart of many a schoolboy and schoolgirl. He was still going strong when he reached 68. At that age he wrote a poem in commemoration of the 50th anniversary of his class' graduation from Bowdoin College. Washington Irving wrote his *Life of Oliver Goldsmith* when he was 66. He also completed his five-volume *Life of Washington* at that same age, which was also the age at which he died.

We usually think of William Cullen Bryant as a young poet. For he wrote his immortal *Thanatopsis* while still in his teens. But he continued the writing of poetry and prose throughout a long life. (He died at the age of 89.) Someone has said of him that his best work was done after he was 70. The *New York Evening Post* has undergone many changes, run into many

difficulties, and experienced many vicissitudes since he sat in the editor's chair and wrote editorials that made it one of America's really great newspapers.

Others whose names shine brightly among the world's great writers also lived long and did outstanding work until close to death. Edward Everett Hale was nearly 80 when his *Memories* came from the presses. He was 82 when, like a 19th century Peter Marshall, he became Chaplain of the United States Senate. Horace Greeley, who made the *New York Tribune* the leading editorial voice of the time, thundered complaints at the way Lincoln was running the War Between the States and ran for the U. S. Presidency against Grant in 1872, was an old man when he died and an actively busy man almost up to the last. So was Charles A. Dana, whose name will always be associated in newspapermen's minds with the great days of the *New York Sun*. So was Samuel Bowles, of the *Springfield Republican*. So was Josephus Daniels, who returned to newspaper editing after a long and successful career as Secretary of the Navy during the first World War and as Ambassador to Mexico under the second President Roosevelt.

A few statesmen have been mentioned. Many others could be. Gladstone first attracted world attention after reaching the three-score mark. He was elected Britain's prime minister four times and was still at the head of Her Majesty's government at 82. He was described as "keen" just before his death in his eighty-ninth year. Winston Churchill won considerable recognition as a war correspondent and soldier in his comparative youth. He was First Lord of the Admiralty during the First World War, when he might have been called a middle-aged man. But it was not until after he entered the ranks of the world's elderly statesmen that he was called to rescue his country and indeed the whole civilized world from defeat and collapse under the heels of Hitlerism. If we extend our glance much farther into the past, we see Dandolo, the blind statesman, who became Venice's chief magistrate at the age of 84, attacked and captured Constantinople 10 years later, was named to the throne of the Eastern Empire at the age of 96 (but turned down the honor), and did not die until within three years of the century mark.

Admiral George Dewey was more than

60 when he made himself a world hero by smashing the Spanish fleet at Manila Bay. Daniel Huntington, the artist, was busy at his easel and colors at 87. Antoinette Louise Brown did much outstanding work as a Unitarian minister over a long career. But some of her best work was done after she passed three-score years and ten. Denmark's King Christian was keeping a strong grip on his country's affairs at 86. Elizabeth Blackwell, this country's pioneer woman doctor, kept on adding to her reputation after reaching and passing the age at which most people—men and women alike—retire to senescent idleness. The same was true of Mrs. Russell Sage, who did vast good with the sizable fortune that was hers to do with as she chose. Clara Barton, founder of the American Red Cross, also had other achievements to her credit, some of them won after she had become an old lady.

Returning to the field of statesmanship, we find that Benjamin Disraeli, Gladstone's great political enemy, also added lustre to his fame after reaching old age. This Englishman, who, like Winston Churchill, achieved a measure of greatness in the field of letters as well as in the political realm, was still a power in politics almost up to the time of his death at the age of 77.

The death a short time ago of Fritzi Scheff gave us a recent example of success extending well into the sunset years. As early as 1904 she was a musical comedy favorite on the American stage. It was she who first sang to American audiences the musical gems from Victor Herbert's "Mademoiselle Modiste." On that memorable opening night she received 26 curtain calls. Her career had begun six years earlier. For it was in 1898 that she appeared in her first production.

Like so many others dependent upon the whims and caprices of the public, Fritzi Scheff found her popularity waning after years of acclaim. And that of course had an adverse effect upon her economic fortunes. In those dark days about the best she could do in the way of finding a job was to work as a hostess in a night club. Fortunately for her, her fortunes improved. She was enjoying a substantial comeback when death overtook her. She was then 74.

The list could be extended almost endlessly. It includes Dr. Charles W. Eliot, one of Harvard University's great presidents, who still was president emeritus at the age

of 90. France called upon 75-year-old Marshall Foch in her hour of crisis. Chauncey M. Depew was still a famous wit and popular after-dinner speaker after passing 90, and also an elder statesman of great influence. Bernard Baruch continued to be an adviser to presidents long after most men of his age have retired. John D. Rockefeller, Sr., had a long career as a philanthropist after he ended his regular career as an industrialist and promoter. Dr. Thomas G. Masaryk served as president of one of the world's youngest republics after he himself had become old. The famed Dr. William H. Welch did some of his greatest work as medical scientist and teacher of future doctors long after normal retirement age and received a nation's acclaim on the occasion of his 80th birthday. (That program was carried on a coast-to-coast radio network and participated in by the President of the United States.) And so on and on.

The achievements of the men and women who have been mentioned, and the many others who might be, point up a truth not generally understood. It was emphasized by the Metropolitan Life Insurance Company a short time ago. That organization, however, called attention to the usefulness and activity of which the average person is capable after he reaches what is considered old age—not just the man or woman whose work makes headlines.

Contrary to the widely held view that the age of 65 usually marks the end of productive life, that company pointed out, a relatively large proportion of Americans older than that are still working pretty hard. At least three-fifths of all men between 70 and 74 were found to be at work. Even those 75 and older were not altogether idle: About one-fifth of the men of that age were still working.

Let us stop looking upon age as the enemy of achievement and productive labor. There is certainly no occasion to regard it as an inevitable sentence to poverty, idleness and futility.

The indications for rest therapy during the active phases of tuberculosis are not altered by the proposals that patients may be treated with surgical collapse or resection, although if, after surgery, the inactive status is reached earlier, it is evident that the total rest period may be somewhat shortened. Of all the agents ever employed in the treatment of tuberculosis, rest has stood the test of time and is today one of our most important weapons.—Robert L. Yeager, M.D., NTA Bulletin, April 1954.

BUREAU OF MATERNAL AND CHILD
HEALTHWilliam G. Paul, M. D., Director
MATERNITY SERVICE IN 1953

Cases admitted to antepartum medical service	13,130
Cases admitted to antepartum nursing service	11,630
Visits by antepartum cases to medical conferences	40,615
Field and office nursing visits to and by antepartum cases	30,277
Cases given nursing service at delivery	36
Cases given postpartum medical examination	4,897
Cases admitted to postpartum nursing service	14,518
Nursing visits to postpartum cases	28,183
Visits for midwife supervision	3,523
Attendance at maternity classes	2,213

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director
SPECIMENS EXAMINED

March 1954

Examinations for diphtheria bacilli and Vincent's	209
Agglutination tests	987
Typhoid cultures (blood, feces, urine and other)	468
Brucella cultures	9
Examinations for malaria	128
Examinations for intestinal parasites	5,139
Serologic tests for syphilis (blood and spinal fluid)	26,944
Darkfield examinations	0
Examinations for gonococci	1,631
Examinations for tubercle bacilli	3,700
Examinations for meningococci	0
Examinations for Negri bodies	208
Water examinations	1,699
Milk and dairy products examinations	5,190
Miscellaneous	3,598
Total	49,910

April 1954

Examinations for diphtheria bacilli and Vincent's	102
Agglutination tests	892
Typhoid cultures (blood, feces, urine and other)	396
Brucella cultures	11
Examinations for malaria	146
Examinations for intestinal parasites	3,400
Serologic tests for syphilis (blood and spinal fluid)	23,256
Darkfield examinations	2
Examinations for gonococci	1,606
Examinations for tubercle bacilli	3,463
Examinations for meningococci	0
Examinations for Negri bodies	133
Water examinations	1,596
Milk and dairy products examinations	5,337
Miscellaneous	1,685
Total	42,025

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

	Feb.	Mar.	E. E.* Mar.
Typhoid and paratyphoid fever	5	4	4
Undulant fever	0	1	5
Meningitis	17	22	17
Scarlet fever	52	44	49
Whooping cough	32	41	88
Diphtheria	13	9	20
Tetanus	1	0	2
Tuberculosis	134	175	255
Tularemia	0	4	2
Amebic dysentery	1	2	2
Malaria	0	0	3
Influenza	1441	594	2764
Smallpox	0	0	0
Measles	1430	1836	477
Poliomyelitis	6	4	3
Encephalitis	0	5	0
Chickenpox	340	456	327
Typhus fever	2	1	8
Mumps	194	175	214
Cancer	389	395	336
Pellagra	1	0	2
Pneumonia	336	272	416
Syphilis	195	199	897
Chancroid	14	14	12
Gonorrhea	446	436	424
Rabies—Human cases	0	0	0
Positive animal heads	61	58	0

	Mar.	Apr.	E. E.* Apr.
Typhoid and paratyphoid fever	4	6	5
Undulant fever	1	2	2
Meningitis	22	12	11
Scarlet fever	44	33	46
Whooping cough	41	45	97
Diphtheria	9	5	18
Tetanus	0	1	2
Tuberculosis	175	201	228
Tularemia	4	0	2
Amebic dysentery	2	0	6
Malaria	0	1	14
Influenza	594	294	981
Smallpox	0	0	0
Measles	1836	1883	486
Poliomyelitis	4	16	3
Encephalitis	5	2	1
Chickenpox	456	360	294
Typhus fever	1	0	8
Mumps	175	156	207
Cancer	395	381	326
Pellagra	0	5	2
Pneumonia	272	236	318
Syphilis	199	228	869
Chancroid	14	10	13
Gonorrhea	436	584	441
Rabies—Human cases	0	0	0
Positive animal heads	58	42	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF SANITATION

Arthur N. Beck, M. S. in S. E., Director

THE DIET AS IT RELATES TO WEIGHT REDUCTION

Contributed by

U. D. Franklin, B. S., M. S.
Sanitarian

The bulging facts on overweight reveal that some 34 million adult Americans are toting pounds, that threaten to cut short their birthdays, in excess of a half-billion pounds.

In the event we are a trifle overweight, we should not only want to lose pounds, we should want to look and feel the way we did 20, 30 or 50 burdensome pounds ago. It has been revealed by surveys that at least one-quarter of the U. S. population is on a reducing diet. The need for a good weight control pattern so reducers will not turn around and pile the pounds back on is apparent. Once we know which foods provide the essential nutrients to make good the wear and tear of daily living, and the approximate caloric value of standard servings, we have the pattern and it's a magic formula by which we can lose 2 to 3 pounds a week without going hungry.

The National Dairy Council Nutritionists, based on results of extensive research in human nutrition at Michigan State College, have worked out reducing diets with emphasis placed on dairy foods. These recommended diets provide an excellent guide for men and women who want to take off excess pounds without ill effects.

The NDC diet is well balanced, including as it does the various foods and nutrients needed for body health and vigor. By following this diet a person can gradually take off uncomfortable and unwanted pounds without developing the tired, hang-dog feeling which so often accompanies the arduous task of losing the weight it has been so much fun to put on.

Actually, dieting should be pleasant when the NDC diet is followed, once a person has made up his mind to the fact that that extra chin and the bulging roll around his middle add neither to his youthful appearance nor to his chances of reaching a venerable old age. The NDC diet deprives the individual of nothing except the usual overdose of starches and carbohydrates. In order to reduce without ill effects, it is necessary to have a diet which supplies the protein, vitamins, minerals, fat, and carbohydrates the body needs from food.

Usually, if a person wants to lose one and one-half to two pounds per week for example, the total energy in his daily food should be about 1,000 calories less than his daily needs. These daily needs, in turn, are based upon body build, height, state of health, and physical activity.

Physically active adults generally lose weight on an intake of 1,400 to 1,800 calories a day. Small, moderately active women

usually need a reducing diet near the lower caloric intake. Bigger, more active women and men generally can take off weight at the 1,800 calorie level.

In case weight-weary "heavies" give serious thought to tackling the battle of the bulge, they should, first of all, consult their doctor.

The following are typical menus for a day's diet, one for 1,400 and the other for 1,800 calories.

Breakfast	1400 calories	1800 calories
Orange, sliced	small	small
Eggs, soft	1 egg	2 eggs
Toast	1 thin slice	1½ thin slices
Butter	1 med. pat	1½ med. pats
Milk, whole	¾ cup	1 cup (½ pt.)
<hr/>		
Lunch		
Meat loaf	med. slice	med. slice
Peas and carrots	⅔ cup	⅔ cup
Cottage cheese salad	¼ cup cheese	¼ cup cheese
Milk, whole	¾ cup	1 cup (½ pt.)
<hr/>		
Dinner		
Cube steak, broiled	1 large	1 large
Green beans	⅔ cup	⅔ cup
Tossed salad	⅔ cup	⅔ cup
Milk, whole	¾ cup	½ cup
Ice cream	none	⅓ pint

According to the National Dairy Council report, 40% of the families in the U. S. need more calcium largely supplied by milk; 20% need more vitamin C, supplied by fruits and vegetables; and 10% need more protein supplied chiefly by meat, milk, cheese and eggs. While low income is clearly one cause of malnutrition, adequate purchasing power is no guarantee of a good diet.

Housewives must be schooled in the technique of purchasing foods for their nutrients.

We should cultivate the habit of loving those foods which will work for us, as we desire them to work, and to cast aside those foods we have loved which do not work to our interests.

The sum of the achievements of tuberculosis associations may be measured not only in terms of tuberculosis control, but also in terms of the growth of many other public health services, including full-time health departments, clinic facilities, school health services, medical education and research, and industrial hygiene programs.—William P. Shepard, M. D., NTA Bulletin, May 1954.

BUREAU OF VITAL STATISTICS
Ralph W. Roberts, M. S., Director
PROVISIONAL BIRTH AND DEATH STATISTICS FOR 1953 AND COMPARISON

Live Births Stillbirths Deaths by Cause	NUMBER RECORDED			Rates		
	1953 (Prov.)	1952 (Final)	1947-1951 (Average)	1953 (Prov.)	1952 (Final)	1947-1951 (Average)
				1953	1952	1947-1951
Total live births	82007	82590	84549	25.9	26.4	27.8
Total stillbirths	1956	2119	2279	23.3	25.0	26.2
Deaths (stillbirths excluded)	26758	27093	26528	8.4	8.7	8.7
Infant deaths—						
under one year	2782	3019	3148	33.9	36.6	37.2
under one month	1933	1935	2151	23.6	23.4	25.4
Cause of Death						
Tuberculosis, 001-019	467	565	930	14.7	18.1	30.5
Syphilis, 020-029	104	112	223	3.3	3.6	7.3
Typhoid and paratyphoid, 040, 041	1	2	4	*	0.1	0.1
Dysentery, 045-048	29	25	32	0.9	0.8	1.0
Scarlet fever, 050	2		1	0.1	*	
Diphtheria, 055	8	21	28	0.2	0.7	0.9
Whooping cough, 056	4	22	29	0.1	0.7	1.9
Meningococcal infections, 057	47	35	25	1.5	1.1	0.8
Poliomyelitis, 080, 081	26	24	20	0.8	0.8	0.7
Encephalitis, 082, 083	5	15	7	0.2	0.5	0.2
Measles, 085	4	41	25	0.1	1.3	0.8
Typhus fever, 100-108			7		0.2	
Malaria, 110-117	1	2	13	*	0.1	0.4
Other infectious and parasitic diseases	75	96	103	2.4	3.1	3.4
Malignant neoplasms, 140-205	3074	2991	2732	96.9	95.6	89.7
Diabetes mellitus, 260	343	328	339	10.8	10.5	11.1
Pellagra, 281	20	26	53	0.6	0.8	1.7
Vascular lesions of central nervous system, 330-334	3380	3327	2932	106.6	106.4	96.3
Other diseases of nervous system and organs of special sense, 340-398	266	273	329	8.4	8.7	10.8
Rheumatic fever, 400-402	49	48	38	1.5	1.5	1.2
Diseases of the heart, 410-434	6264	6011		197.6	192.2	
Hypertension with heart disease, 440-443			7261	61.5	63.9	238.4
Diseases of the arteries, 450-456	474	445	314	14.9	14.2	10.3
Other diseases of circulatory system, 444-447, 460-468	760	610	473	24.0	19.5	15.5
Influenza, 480-483	390	275	266	12.3	8.8	8.7
Pneumonia, 490-493	941	944	1098	29.7	30.2	36.0
Bronchitis, 500-502	48	63	48	1.5	2.0	1.6
Other respiratory diseases, 470-475, 510-527	184	178	170	5.8	5.7	5.6
Appendicitis, 550-553	52	42	79	1.6	1.3	2.6
Intestinal obstruction and hernia, 560-561, 570	134	150	176	4.2	4.8	5.8
Gastro-enteritis and colitis (under 2), 571.0, 764	133	186	156	4.2	5.9	5.1
Cirrhosis of liver, 581	137	158	150	4.3	5.0	4.9
Other diseases of digestive system, 530-549, 571.1, 572-580, 582-587	380	379	365	12.0	12.1	12.0
Diseases of pregnancy and childbirth, 640-689	116	138	174	13.8	16.4	20.0
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	17	14	39	2.0	1.7	4.5
Congenital malformations, 750-759	362	361	329	4.4	4.4	3.9
Accidental deaths, total, 800-962	1843	1933	1857	58.1	61.8	61.0
Motor vehicle accidents, 810-835, 960	855	820	772	27.0	26.2	25.3
All other defined causes	3471	3894	4340	109.5	124.5	142.5
Ill-defined and unknown causes, 780-793, 795	1214	1206	1402	38.3	61.8	46.0

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; still-

Complications During Anesthesia—Hypoxia is the greatest threat to the safety of most patients and is one of the most serious of complications. The symptoms of acute severe hypoxia are easily recognized and attract the attention of the surgical team as well as the anesthetist. On the other hand, the symptoms of chronic hypoxia of a slight but dangerous degree may be insidious; hence, they can easily be overlooked by the busy anesthetist who may be responsible for duties other than the constant observation of the patient. Too frequently the history, after cardiac arrest, is: "The patient was just fine and everything was going along nicely when all of a sudden the heart stopped." At necropsy no cause of death can be found and a diagnosis of "vagovagal" reflex may be made. This diagnosis made by exclusion may or may not be correct. Operations on the human heart itself have given some of us an opportunity to observe the stamina of this organ and to develop a high regard for its ability to function under difficulty. It seems logical that in some cases of unexplained cardiac arrest the history of the sequence of events leading up to the arrest may not have been just as they seemed even to the honest anesthetist. Before arrest, some hearts have likely been subjected to unfavorable circumstances but have been able to maintain some function under stress. The arrest, instead of being an initial sudden occurrence, was the climax to a slow decrease in the ability of the heart to compensate for the stress. If the anesthetist had become aware that the heart was under stress, preventive measures could have been taken to remove the unfavorable circumstances and the ultimate arrest could have been avoided.

All the numerous ways in which hypoxia can occur cannot be mentioned here but they should always be in the back of the mind of the alert anesthetist. Regardless of the type of surgery and the manner of draping, some part of the patient's skin or nails should be exposed in good light, so that the color can be observed and cyanosis prevented. As will be mentioned later, the color of the skin is a grossly inaccurate indication of the degree of oxygenation of the blood. However, it is certainly better to be able to observe the color of the skin at frequent intervals than not to be able to see any part of the patient. I like to have my hand on the patient's face, neck, chest or abdomen where I can feel the respiratory motion, even when I can clearly see the motion of the breathing bag on the anesthesia machine. In this way I am doubly aware of the respiration through two senses—sight and touch. If the respiratory passages become partly obstructed, I may be warned by a third sense—hearing.

If a finger is kept in the vicinity of an artery of the patient, a subconscious contact can be maintained with the circulatory system and its efficiency.—Pender, Minnesota Med., June '54.

births per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

*Rate too small to compute.

BOOK ABSTRACTS AND REVIEWS

Thoughts About Life. By Felix Friedberg. Cloth. Price, \$2.50. Pp. 40. New York: Philosophical Library, 1954.

The publishers tell us that the five essays comprising this brief volume represent "a college teacher's 'point of view' on topics which should be the concern of every thinking person." They are said to "mirror an individual's struggle to grasp culture in a modern world."

The culture encompassed is pretty broad. It is also pretty deep, as may be seen by a mere listing of the five titles: Ideation or Reality, The Function of a University, Philosophy's Service to the Scientist, A Work of Art, and Characteristic Phenomena of Living Things.

Mr. Friedberg, obviously, is not a writer for the masses. The average person would soon become lost in the thick forest of philosophical reasoning into which the reader plunges in the opening paragraph and in which he remains until he reaches the wide open spaces of white space at the end of the fifth essay. But those who persevere will reach the end of the trail better informed, though weary.

John M. Gibson

Fundamentals of Otolaryngology: A Textbook of Ear, Nose and Throat Diseases. By Lawrence R. Boies, M. D., Clinical Professor of Otolaryngology, University of Minnesota Medical School, Minneapolis. Associates: Charles E. Connor, M. D., et al. Second edition. Cloth. Price, \$7.00. Pp. 487, with 197 illustrations. W. B. Saunders Company, Philadelphia, 1954.

Boies' Otolaryngology is rapidly becoming a classic of literature in the teaching of ear, nose and throat to medical students.

It is purposely brief and to the point, omitting historical data and extensive details of treatment or surgery, for it is not a book written primarily for the specialist but rather for the student learning fundamentals, or for the practitioner who desires a quick review of the modern ideas of otolaryngology, which have changed so radically in the past few years. However, for anyone desiring further information on any point, an extensive bibliography covering almost all of the significant literature on the subject is included in each chapter.

It is well written, the print is excellent, and the many illustrations and diagrams are well chosen to aid in understanding the text. The second edition has been completely rewritten to keep up with modern trends in the last two years.

Paul S. Mertins, Jr., M. D.

Reconstructive Surgery of the Eyelids. By Wendell L. Hughes, M. D., F. A. C. S. Second edition. Cloth. Price, \$8.50. Pp. 260, with 268

illustrations. The C. V. Mosby Co., St. Louis, 1954.

As the title of this book implies, we have here a thorough treatise on plastic surgery of the eyelids. Some ideas are original with the author and of proven value. However, we have in this monograph an extension of the rules and techniques of plastic surgery of the eye adnexa established by the late John M. Wheeler. A good part of the introduction to eyelid surgery is preceded by general concepts of plastic surgery and a review of its historical background. This text is highly specialized and of limited value to those engaged in surgical ophthalmology alone.

The monograph contains 226 pages best reviewed by illustration of its division into the following chapters:

- I Early development of skin grafting.
- II Development of grafting without a pedicle.
- III Variations of pedicle flaps.
- IV Thin dermo-epidermic grafts.
- V General considerations regarding grafting.
- VI Reconstruction of the conjunctival layer.
- VII Reconstruction of tarsus.
- VIII Transplantation of cilia and other miscellaneous lid structures.
- IX Case reports illustrating blepharopoesis by the author's method.
- X Upper lid reconstruction.
- XI Reconstruction of both lids.
- XII Choice of treatment for various types of growths.

References.

The first five chapters are a review of plastic surgery and have been many times documented before. Chapters six through twelve are worthy of any ophthalmologist's consideration, especially if not already familiar with these procedures which were presented in the author's first edition. The plates and diagrams are excellent. This book is advised for the ophthalmologist's library for its references.

Karl B. Benkwith, M. D.

Understanding the Japanese Mind. By James Clark Moloney, M. D. Cloth. Price, \$3.50. Pp. 252. New York: Philosophical Library, 1954.

Much has been written in recent years about Japanese mentality. In compliance with the well-founded admonition to "know your enemy," our military leaders, those in charge of the propaganda war, and many others did their best between Pearl Harbor and Tokyo Bay to find out why the Japanese people and their leaders did the things they did. Before the bombs fell on that day of infamy, there was much interest in how the Japanese thinking machine was func-

tioning, because that country was long regarded as a likely antagonist. And, after the war, many of us felt renewed interest in the mental processes of those people who had suddenly and unexpectedly become our wards.

Those who studied the Japanese mentality over that extended period and wrote of their findings told some strange things about those Orientals with a surging ambition to dominate the Orient and humble their western rivals. There was, for example, the story about the Japanese professional man—a doctor, if memory is not tricky—who entertained an American visitor in lavish fashion and with great gaiety and then casually apologized for his wife's absence: She was dying from cancer. Her death was expected momentarily. Then there was the incident of the Japanese who invited some friends, most of them Americans, to a lavish and elegant party set for a certain date. While they were en route to Japan, his father died. Did he call off the planned festivities and turn the gathering into a quiet meeting of friends, in keeping with the new turn in events? He did not. He simply "postponed" the death a week or two. The celebration was carried out as planned. There was much drinking and lavish eating. Death and thoughts of death had no place at such an event. Then, after it was over and his guests had departed, the son began the somber ritual of mourning.

Dr. Moloney has made still another contribution to our knowledge of that mysterious thing, the Japanese mind. Not intended for the average reader, who looks upon books as sources of entertainment rather than of information, *Understanding the Japanese Mind* approaches the subject largely from the philosophical point of view. Its author certainly does a thorough job. His research must have been extremely extensive. He appears, too, to have had a vast store of knowledge on this subject even before he set to work on this book.

He gives us some interesting examples of the Japanese mind at work. There is, for instance,

his reference to the long-observed celebration of Matthew Perry Day, the anniversary of the day when an American admiral showed up with some of the most formidable of the world's sea-going instruments of warfare and, under threat of bombardment, obtained concessions from the Japanese government which effectively broke the seal which had kept that country hermetically isolated from the western world. Matthew Perry Day, he tells us, was celebrated every April 10 throughout World War II. (We Americans, looking at such things differently, stopped presenting "Madame Butterfly.")

"It was a sad day for the Japanese when Perry set foot upon Japanese soil," Dr. Moloney wrote. "Yet so much enslaved by their compulsive customs, the day was honored despite the new outbreak and current hostilities with Perry's government."

There are any number of other things about the Japanese mind, as Dr. Moloney pictures it, that seem strange to us Americans. The father, and not the mother, is looked upon as the revered head of the family. The oldest son, like the mother, is "without status." Relatively few Japanese become insane, and those who do are subjected to only slight restraint. Many indeed are so easily managed that it is not necessary to send them to institutions. The most violent cases are kept together and seldom do themselves or anybody else any harm. The author appears to accept two earlier authorities' explanation for this: ". . . the Japanese had been so indoctrinated in non-assertiveness so early that even when psychotic, they were incapable of individually sponsored aggressive behavior."

The impression conveyed by these observations and by others made by Dr. Moloney lead inevitably to the conclusion that the Japanese are indeed a strange-thinking people. *Understanding the Japanese Mind* is recommended to those who may wish to pursue the subject farther.

John M. Gibson

AMERICAN MEDICAL ASSOCIATION NEWS

SURGERY NOW SAFE FOR DIABETICS

Surgery has become as safe for the diabetic as for the non-diabetic, according to Dr. Charles R. Shuman, Temple University Hospital and School of Medicine, Philadelphia.

Dr. Shuman reported on a three-year study of 340 patients in the June 12 Journal of the American Medical Association.

These patients underwent 373 operations while under the supervision of the Temple University Hospital diabetic service. There were no deaths directly resulting from diabetes or its treatment, Dr. Shuman said.

"The number of diabetics who receive surgical treatment has steadily increased during the past three decades since the discovery of insulin and will continue to increase in future years.

"The diabetic patient is considered a safe subject for any type of surgery when modern methods of anesthesia, fluid and electrolyte replacement, antibiotic therapy and control of metabolism and nutrition are used," he said.

Although heart disease and infection increase the risk during surgery and most of the patients studied suffered these complications, only nine patients died in the post-

operative period, Dr. Shuman related.

Although six patients suffered from uremia, a serious complication, four of them made successful recoveries, he said.

Complications of diabetes were more frequent in this study because most of the patients were over 45 years old, Dr. Shuman pointed out.

"The mortality and morbidity aspects of surgery in diabetics are more closely related to the disease necessitating surgery, the vascular complications of diabetes, and infections than to the diabetes itself," he said.

Proper management of infections with antibiotics, and of heart ailments with drugs has "somewhat reduced" the importance of these factors, according to Dr. Shuman.

CONTAGIOUS DISEASES IN CHILDREN REACH PEAK AT FIVE YEARS

Children are more likely to get contagious diseases at about five years old than any other time, a study of 200 New York City children shows.

However, they experience upper respiratory infections at an even rate from birth to 12 years, Dr. Nathan Epstein said in the current American Journal of Diseases of Children, published by the American Medical Association.

He based his conclusions on a 12-year study of children from 125 New York families. They were checked for an average of 6 years each in the Department of Pediatrics of the New York Hospital-Cornell Medical Center.

The study shows that from birth to 10 years a child has about one out of five chances of being free from upper respiratory infections during any year. Between 10 and 12 the chance is one in three.

"The incidence of contagious diseases reaches a peak at the beginning of the school age (5 to 7 years)," Dr. Epstein said.

One of four children suffered a contagious disease in any one year, including measles, German measles, whooping cough or chickenpox.

"The incidence of mild upper respiratory infections appears to be remarkably constant in childhood," Dr. Epstein said. "Two of three children experienced one or more mild upper respiratory infections during any year. One out of four children had one or more severe upper respiratory infections during any year."

The children studied averaged one or two

mild and one severe infection a year, regardless of age. Less than five per cent suffered more than two a year.

Dr. Epstein said he found no significant difference in the incidence or frequency of upper respiratory infections among children potentially susceptible to rheumatic fever and those not susceptible. Respiratory infections have long been implicated in the history of rheumatic fever, he said, but it is "not clear" whether the rheumatic susceptible child (who has had rheumatic fever) is more prone to such infections.

"CANCER CURE" FOUND TO BE ONLY COUGH MEDICINE

The American Medical Association's Bureau of Investigation has reported that the only "pharmacologically active" ingredient in the so-called Hoxsey "cancer tonic" is a drug used mainly in cough medicine.

The bureau observed in the June 12 Journal of the American Medical Association that it sees no reason for the A. M. A. to investigate the remedy further.

It points out that the federal government has obtained an injunction against shipment of the material in interstate commerce as a cancer medicine.

Any person with "a modicum of knowledge" of drugs knows that the medicine "is without any therapeutic merit in the treatment of cancer," the bureau said.

"Any such person who would seriously contend that scientific medicine is under any obligation to investigate such a mixture or its promoter is either stupid or dishonest.

"There is indication that certain persons, including a Pennsylvania state senator and several physicians, magazine editors, and newspaper editors, have sought to create in the minds of the public an idea that organized medicine, particularly the American Medical Association, will not give Mr. (Harry) Hoxsey an opportunity to demonstrate his claimed cancer cure before the world, because it refuses to send representatives to Dallas, Texas, to investigate.

"It is fair to observe that the American Medical Association or any other association or individual has no need to go beyond the Hoxsey label to be convinced," the bureau stated.

"Under the circumstances, the whole picture would be extremely ludicrous except for the appeal to the credulous and unreasoning."

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THE DOCTOR AS AN INDIVIDUAL

M. L. MEADORS

Executive Secretary and Counsel
South Carolina Medical Association

Florence, South Carolina

The invitation to speak to the members of the Medical Association of the State of Alabama was genuinely appreciated. I am not a doctor. I am and have been, however, for more years than I like to admit, a member of another great profession. I am still engaged in the private practice of law and for the past ten years have had the pleasure of rather close association with the doctors of my State. Through my work with them, I have become familiar with many of the problems of the profession, and have been able to visualize, at times, what might be my reaction, as a lawyer, to some of the situations which have confronted you. I would like for us to look at some of your problems together, not as doctors but as they are seen by others—perhaps by lawyers, businessmen, clerks—individuals generally, the sort of people who are your patients.

All of us have one thing, at least, in common. We were people before we were doctors, lawyers, businessmen, or anything else. And I believe you will agree with me that most of the disagreements, the misunderstandings, the real conflicts of life, are the result of the absence of a common interest. That is true of men, women, churches, states, nations and even political parties. Think, for instance, what national progress might result if the Republican Party could agree definitely, once and for all, to recognize either President Eisenhower or Senator McCarthy as the leader and official head!

The moment we depart from the basic life pattern common to all men, we begin to lose the community of interest, the singleness of purpose which alone could keep us at all times in full accord with all our fellows, and, I might add, in a state of terrific boredom. The skills we acquire through special training and experience make it possible for us to be of immeasurably greater service to ourselves and our fellowmen. Also, however, they limit our perspective, progressively I think, and at times out of all proportion to the extent of the specialized skill acquired. Devotion of life to the pursuit of one objective, however worthy, narrows, inevitably, the scope of our general knowledge and experience. As our viewpoints diverge, we tend to lose touch with those whose lives take a different course.

The secret of the veneration and respect in which the members of the profession generally were held twenty-five or thirty years ago was in the fact that no wide divergence between viewpoints ever developed. The doctors were close to their patients and their families. They were people, just as their patients were, affected by the same influences and limitations, economic and otherwise. They had not the scientific knowledge nor the facilities to aid them in the treatment of their patients that are possessed by doctors today. They had something else though, which, in many cases, was an excellent substitute. They had understanding, and a genuine personal interest in the lives and the physical condition of their patients, and they had time to exhibit that understanding and interest. They took ad-

vantage of the opportunity to make it known to their patients that they were concerned about their physical condition, not simply as representing a scientific exhibit of a pathologic state but as it concerned the life of a friend and fellow-being.

The reason for most of the criticism of the medical profession in recent years is not high fees, split fees, ghost surgery, or unethical practices. The real cause, I am convinced, is a combination of the vastly increased demand for medical service of all kinds, jealousy on the part of the public of the improved economic position of the profession, and an accumulation of tendencies and habits in small things in the physician's contact with his patients. We have argued long and strenuously for maintenance of the physician-patient relationship, but I am afraid that frequently the doctor and his staff have been largely responsible for damaging that relationship. From these small things there has developed a mass psychology which some organizations, government agents, and publications have cultivated for their own selfish ends.

It can hardly be denied that there has been a very strong tendency to accentuate the importance of modern scientific methods of treatment, the vastly increased technical and specialized knowledge of physicians today. Along with this, the tendency has also increased to emphasize the distinction between the medical fraternity which has the knowledge, and the masses of the people who are to receive its benefits, but are not admitted to its inner secrets. This has led to a sharp delineation between doctors and the people they serve. It has developed the feeling on the part of the profession and public alike that doctors are in a class by themselves, that they are not individuals like their patients, and are not to be judged by the same rules nor guided by the same standards of conduct.

Rather than emphasize the difference between the extent of the doctor's learning and that of his patients, the distinction should, as far as possible, be minimized. Every doctor has numbers of patients of abundant intelligence, who, even if lacking in education, are perfectly capable of understanding a clear explanation of their physical condition. And the tendency on the part of some to treat their patients apparently as if they are considered incapable of such understanding is unfortunate, and

can only serve to decrease the cordiality of relationship between the two. Often, of course, time is a factor, and the busy doctor has not a sufficient amount of it to permit him to go into lengthy explanations with each patient; but in many instances I believe a few words would suffice, and undoubtedly would pay big dividends. In other words, if a doctor can take his patient into his confidence, deal with him as nearly as possible on his own level, and let him understand that in his patient the physician recognizes another individual like unto himself, a great deal will be done to break down the barrier which sometimes exists between the profession and the public. Perhaps its erection might even be prevented.

People are anxious to turn over their physical conditions, their bodies, and their minds, when they are involved, to the care of their chosen physician, to consider him as the complete authority in his field, and gladly to take his directions and follow his advice. How often do we hear the expression used, with considerable pride, "My doctor—," and again, "My doctor won't let me—" do thus and so. But outside his chosen field, a person likes to look upon his physician as simply another person, another individual like himself. Socially, or as a member of the business community, he does not wish to be regarded as inferior to the physician merely because he, the patient, is not one. Good public relations are a matter of psychology. They can be developed through "gimmicks," publicity and artificial means. But those are sorry substitutes for consistent, human attitudes, evident from day to day.

Whether we actually believe they are or not, it is always good policy to treat our associates as if we regard them as our equals. There is no advantage to be gained from permitting our personal attitudes or our conduct to convey the impression to anyone we are called upon to serve that we feel we are in any sense superior. Simple courtesy—good manners—is the best guide in this particular, as, of course, in every phase of life. However hard-pressed we may be to carry out all that our work and other obligations demand of us during the day, we should keep in mind that our time is not more valuable to us than that of the other fellow is to him.

There are occasions, of course, when appointments cannot be kept on schedule.

Emergencies arise, previous appointments take longer than could have been expected. The average patient will understand and accept the inconvenience as a matter of course if only some word of explanation and quiet apology is offered by the doctor or his receptionist. I wonder what would happen if one of my clients, a doctor perhaps, with whom I had an appointment for three o'clock, were left to wait until four-thirty or five o'clock without some explanation as to the reason for the delay, a suggestion that perhaps he would like to return at another time, or at least an expression of regret that the unavoidable delay has been necessary. That client would get another lawyer!

Once in the examination or consultation room the doctor is supreme. In his waiting room his patients expect to be treated as equals. Perhaps the patient is a successful business man or member of one of the other professions, which to the patient is just as important as that of the doctor is to him. Perhaps, actually, the patient's time is even more valuable from a financial standpoint or otherwise. The damage done in such a case is two-fold: first, the patient's time is taken unnecessarily and is irretrievably lost; in addition, and this is more important, there is forced upon his consciousness the implication that his loss of time and inconvenience are of little consequence. He had an appointment, yes. The doctor couldn't see him, so what? If he wants to see the doctor he can wait. And, of course, the same reasoning applies if the patient is not one of the very important persons in the community. A clerk or laborer is entitled to the same consideration. It should not be necessary for a wage-earner to take a day off, or even a half-day, to consult his physician simply because it is indefinite whether or not his appointment will be kept.

The practice of any profession should be marked by sincerity that is evident and interest that is genuine in the protection of the client's interests, or improvement of the patient's condition. Diagnosis alone is not enough. Treatment is the real objective which a patient seeks. In these days of realization of the importance of the psychosomatic factors in the treatment of most conditions, very often we see the tendency to diagnose the complaint as primarily mental or emotional, to treat it lightly, to emphasize the fact that if the mental or emotional difficulty is removed, the physical

condition will improve, but frequently the comment stops there. There is all too little indication of the means whereby the psychologic factors can be improved. The symptoms are highly important, but, usually, it is not enough for the patient simply to be able to know what they indicate. He needs guidance and direction as to his conduct toward removing the basic cause of his difficulty.

Many of the profession's difficulties can be eradicated if the doctor will deal with the patient as he would expect to be dealt with if their places were reversed. The golden rule applies here as it does in all the other situations of life. Should we not face the fact, and admit it freely, that we are not superior to our fellow-men simply because we may be peculiarly talented or more highly efficient in some particular skills? In those specialized fields we are better, but, taking man as a whole, there is nothing that gives us the right or justification to regard ourselves as entitled to consistently higher privilege or more consideration than many others with whom we deal and whom it is our privilege to serve.

And that brings me to something else which I think deserves attention.

What is the goal of the average physician beginning practice today? If he is like the average non-medical individual, and I maintain that he is, he seeks satisfaction in life, that which will bring him the greatest contentment and peace of mind over the years. And what is that? Material gain? Prestige? A place of power in the community? Or does he seek to find satisfaction in becoming most proficient in his chosen field and is that wish prompted by the desire to make the benefits of his proficiency available to those whom he has the opportunity to serve?

This business of service is something about which I do not think we should be either too idealistic or too cynical. I am always suspicious when I hear someone say that his objective is solely to be of service. I have grave doubt about the motives of any commercial or business organization which advertises its supreme desire to be of "service" to its patrons or clientele. But, while I do not believe that any business organized and operated for profit, and very few, if any, professional men, are prompted solely by pure motives to be of service to their fellows, I do believe that many people, pro-

fessional and otherwise, find a genuine satisfaction in the realization that their vocation, while rendering a substantial material profit, is actually rendering a service. In other words, I know that the material gain, the financial profit derived from business and, especially, from the practice of a profession, is by no means the only reward. The extent to which a physician can cultivate this normal and natural desire to achieve the sense of satisfaction from service, the realization of a job well done, or good accomplished, is an important factor in the determination of the manner in which his profession will be practiced, and, certainly, it is a great mistake to regard the practice of medicine or the practice of law, or the pursuit of any other profession, as purely designed and intended for the purpose of making a profit.

Some time ago, at one of the national conferences, I was amazed to hear a rather important official of a national business corporation draw a comparison between the conduct of his business and the practice of the profession of medicine. Nothing, it seems to me, could present a greater contrast. The manufacturer is engaged in fabricating, advertising, and selling a product. He is justified in, and expected to produce it as economically as possible, without depreciating the quality. He must publicize it if he expects to create the demand, and he is justified in pointing out its advantages over competitive products in the effort to find a successful market for it.

A member of the medical or legal profession, however, is not engaged in manufacturing, advertising and selling a product but in rendering a service. If he is true to the traditions of his great craft, his first consideration is to equip himself intellectually, by training and through experience, to render the service for which he holds himself out as qualified. And in the course of that training it is essential that he develop a genuine understanding of human nature, the needs and desires of the people whom he expects to serve, that he cultivate his knowledge of them as individuals, not as guinea pigs, and that he learn to retain at all times his own status as an individual. The place for the observation of pathologic specimens is in the laboratory. As long as the specimen is part of the human body it cannot be considered impersonally. It is a part of the individual to whom it is attached and

must be considered in the light of the other characteristics—physical, mental and emotional—of the individual concerned. The doctor who forgets this in his practice, who is concerned only with the scientific developments and the application of his technical skills, who overlooks the perfectly natural instincts and requirements of his patient, most of whose feelings and attitudes have been rendered abnormal by illness, is bound to increase the friction which results from a lack of understanding on the part of the patient as to how the physician can be so indifferent to his personal wants and needs.

In closing, I would like to call to your attention the words of a kindly and understanding doctor, a prominent former member of your profession and your national organization. The occasion of their original expression was made more dramatic and, it seems to me, significant, by the concurrent circumstances. Upon leaving his office on an afternoon early in last December, preparatory to making the trip to St. Louis for the meeting of the American Medical Association's House of Delegates, of which he was a member, Dr. Edward D. Spalding of Detroit was shot and killed by a mentally unbalanced individual looking for another physician against whom he had some imagined grievance. On the page opposite Dr. Spalding's obituary in the Detroit Medical News, of which he was Editor, on December 7, appeared the last editorial he had written. Under the circumstances, it seems more like a benediction. I do not believe that I have ever read anything that more clearly, simply and perfectly expresses the highest concept of true medical service, its goal and purpose, and the means whereby they should be achieved. There is something about it which, in its simplicity and beauty, reminds one of the expressions of the Great Physician. Dr. Spalding's remarks were entitled "The Manners of the Profession," and I pass on to you a few sentences lifted in their expressive, meaningful beauty, from his brief paragraphs:

"The cornerstone on which all medical practice rests is that of *personal service*; intelligent and kindly individual attention. Medicine as a science has made prodigious strides in the last half century, and yet it seems the more we progress as scientists the more impersonal we become. These two attitudes, however, are in no sense incompatible, and proficiency in the one in no way requires neglect of the other."

"One starting point of this unfortunate and wrong attitude on the part of many doctors is in the medical school itself. The young men on entering are continually presented with the abstract facts of advancing medical science, but little attention is given to their basic application for the relief of human ills. The patients in the wards are just so many exhibits of this or that interesting pathological condition . . . examples of problems in perverted physiology waiting to be solved. The human element is largely overlooked.

"Today the medical student is first saturated with all the latest scientific developments pumped into him in medical school. He is then presented with thousands of proprietary medications furnished him by pharmaceutical houses, delivered with all the pressure of modern advertising. It is no wonder that soon he is apt to find himself

doing a 'land-office business' on a purely commercial level.

"But this is not the practice of medicine as it should be. In the conduct of a practice the physician, in addition to his intelligence and scientific skill, should give something of himself to each patient whom he serves, *a kindly personal human interest*. This is the leaven in the bread that makes the whole loaf of scientific knowledge rise, and without which technical facts become cold fare indeed. It is the lack of just this element which is one of the fundamental faults of the medical profession today, and the reason for much of the social unrest and dissatisfaction with medical service as it is now offered.

"The remedy lies not in public propaganda, published articles, and radio broadcasts, but in the consulting room of every doctor, and how he deals with each and every patient that he sees."

THE CARE OF THE PREMATURE BABY DURING LABOR AND DELIVERY

J. ROBERT WILLSON, M. D.
Philadelphia, Pa.

Of all the causes of infant mortality, that due to prematurity and its attendant complications is by far the most important. Of the 17,319 infants who were born alive in the Temple University Hospital during the years 1947-53, 339 (1.96 per cent) died. The mortality rate for the 1392 (8 per cent) who were born prematurely and who weighed less than 2500 grams ($5\frac{1}{2}$ pounds) was 17.9 per cent, while only 90 (0.56 per cent) of the 15,927 who weighed more than this amount failed to survive (table 1).

Although the mortality falls progressively as the birth weight increases, prematurity per se is not often the primary reason for the death of the infant. A small and incompletely developed baby will often survive if all the circumstances are favorable but it may be unable to compensate for the added burdens of infection, anemia or injury. The poorly developed and comparatively weak muscles of the chest wall may

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TABLE I
LIVE BIRTHS AND NEONATAL MORTALITY
TEMPLE UNIVERSITY HOSPITAL 1947-53

Weight in Pounds	Live Births	Neonatal Deaths	Mortality Rate
Under 2	77 (0.5%)	77	100%
2-3	118	75	63.6%
3-4	205	47	23%
4-5	431 (7+%)	29	6.7% (14%)
5-5½	561	21	3.7%
Over 5½	15,927 (92+%)	90	0.56%
Total	17,319	339	1.96%

be incapable of expanding the chest sufficiently to provide complete aeration of the lungs and oxygenation of the blood. In addition, the respiratory center is less responsive to the chemical changes which control respiration than it is in older children and in adults. In the smaller premature infants the lungs themselves may be incompletely developed and less capable of exchanging the respiratory gases between the alveoli and the blood stream. The cough and gag reflexes are poorly developed and aspiration of stomach contents frequently occurs if the infant vomits. The premature baby usually develops anemia; most of the reserve iron stores are laid down during the

last few weeks in utero and the infant born before term has no available supply to utilize until iron can be added to the diet. The protective febrile and leucocytic responses to infection are often insufficient to control the multiplication of pathogenic organisms, consequently infection progresses rapidly and produces few signs. Because the blood vessels, particularly those within the cranial cavity, are fragile and easily injured, cerebral hemorrhage from trauma during delivery or secondary to anoxic changes occurs commonly. The metabolism and the caloric requirements of the premature are higher than for the mature infant but its stomach capacity is small and its ability to suck and swallow often has not developed completely at birth, therefore it is difficult to maintain its nutritional requirements.

CAUSES OF DEATH IN PREMATURE INFANTS

Prematurity alone does not often cause death, but by limiting the infant's ability to respond to abnormal stresses it may handicap it to a point at which it can cope with the problems of an independent existence only if conditions are ideal.

Anoxia. Fetal anoxia often occurs in premature infants, particularly those which present as breeches, those in whom the placenta separates prematurely, and if sedative drugs and inhalation anesthetics are administered to the mother during labor. The *hyaline membrane* which can be seen lining the alveoli of certain premature infants who die of respiratory failure soon after delivery is composed of eosinophilic material of unknown origin. It is a particularly common finding in those who die after being delivered by cesarean section. Chest retraction, labored respirations, and cyanosis appear shortly after birth and become progressively more pronounced until death occurs in 36 to 48 hours.

Cerebral Hemorrhage. The fragile vessels of the brain and meninges are easily injured if labor is prolonged or precipitate or if difficulty is encountered in delivering the aftercoming head, but in many infants in whom extensive intracranial hemorrhage is found at autopsy the labor was normal and delivery was completed without obvious trauma. In such instances diffuse hemorrhage may be due to capillary damage from anoxia which developed during labor or the first few days of life.

Infection. Bronchopneumonia, bacteremia, meningitis or localized infections such

as omphalitis often develop in premature infants because their powers of resistance are so limited. Anemia and anoxia, both of which are more apt to be present in premature than in large babies, will limit the ability to react to the presence of pathogenic bacteria even further.

Maternal Disease. Certain maternal diseases, such as toxemia of pregnancy, severe acute infections and cyanotic heart disease, predispose to premature delivery and by producing fetal anoxia or infection will reduce the infant's chance for survival.

METHODS FOR REDUCING THE MORTALITY ACCOMPANYING PREMATURE DELIVERY PREVENTION OF PREMATURITY

The more mature the infant at birth the greater is his chance of surviving, therefore the single most important way to reduce infant mortality is to prevent premature delivery. Although this is not always possible it can sometimes be accomplished.

General Care. The fact that premature labor occurs more often in ward than in private patients and in Negro than in white women suggests certain possible causes for the early spontaneous termination of pregnancy. The ward patient is more apt to have had an inadequate diet for a long period of time and to have a well established nutritional defect and anemia; in addition, toxemia, infection and other complications occur more often than in the private patients. In the Temple University Hospital premature labor occurs in about 5.4 per cent of private patients while in ward patients the incidence is 11.3 per cent. Diet, anemia and general physical condition do not constitute the only or perhaps even the main cause for the early onset of labor, however, because many other women with equally low hemoglobin levels and comparable nutritional states go through repeated pregnancies without complication. Despite this fact every effort should be made to improve nutrition, to correct anemia, and to eliminate general disease before pregnancy is initiated or at least during the prenatal period.

Premature Rupture of the Membranes. Labor will be initiated by rupture of the fetal membranes but the time interval between the escape of the amniotic fluid and the onset of uterine contractions is determined by the duration of pregnancy and the condition of the cervix. If the cervix is effaced and ripe, labor will begin promptly,

but if it is long, closed and firm, as it usually is until shortly before term, the pregnancy may continue for several days or even two or three weeks. An infant born at the 32nd or 33d week of gestation has no more than a 50 per cent chance of living but the longer it remains within the uterus the greater are the possibilities of its being able to survive independently. Consequently, if the membranes do rupture spontaneously, no attempt should be made to terminate the pregnancy artificially unless it is of at least 36 to 37 weeks duration. The administration of antibiotic preparations does little to decrease the incidence of serious maternal infection after prolonged rupture of the membranes but may influence infant survival. Soon after the sac ruptures bacteria invade the amniotic cavity producing an amnionitis; the infant may aspirate the contaminated uterine contents or the infection may be transmitted through its blood stream from the infected amniotic surface of the placenta. When the membranes rupture prematurely and labor does not begin within 12 hours, we usually administer one of the broad spectrum antibiotic preparations in an attempt to reduce the incidence of fetal infection.

The cause for spontaneous early rupture of the membranes is not always obvious but active cervicitis may produce a localized area of amnionitis in the adjacent membrane, thereby weakening the portion of the amniotic sac which overlies the cervix, permitting it to rupture. The administration of 600,000 units of penicillin daily for 5 days to women with acute or extensive cervicitis may prevent this. Lash and his co-workers have recently called attention to the incompetent internal cervical os as a cause for rupture of the membranes late in each of several successive pregnancies. They believe that a longitudinal, unhealed, incomplete laceration through the area of the internal os from an injury during a previous delivery will permit the cervix to efface and dilate early, thereby influencing rupture of the membranes. Such defects can be detected by palpating the area of the internal os through the cervical canal; if present they can be exposed by deflecting the bladder upward and repaired by freshening and reapproximating the edges.

Placenta Previa. The initial episode of bleeding in women with placenta previa often occurs between the 30th and the 34th

weeks of pregnancy. If the infant is delivered immediately the survival rate will be low but if the pregnancy can be allowed to continue for several more weeks the infant mortality will be considerably reduced. Pelvic examination, except inspection of the cervix through a speculum to eliminate the possibility that the bleeding may originate from a local cervical lesion, usually is contraindicated if the blood loss is slight. The position of the placenta can often be determined by x-ray placentography. If placenta previa is diagnosed and the bleeding is slight, if the patient can remain in the hospital or nearby, if a source of compatible blood is constantly available, and if trauma and the introduction of infection can be prevented, delay is permissible. If, on the other hand, the bleeding is profuse, the uterus must be emptied to control the hemorrhage regardless of the stage of gestation. The life of the mother should never be jeopardized in the interests of the fetus.

Toxemia of Pregnancy. Many toxemias develop fairly early in the third trimester of pregnancy. The combination of the maternal disease, the treatment and prematurity contribute to an increased infant mortality which becomes progressively higher as the severity of the condition increases. If the possibility that toxemia may develop is anticipated in individuals who are more susceptible than usual (those with essential hypertension, multiple pregnancy, excessive fluid retention, diabetes, etc.), and if the earliest signs are detected and treatment is instituted, it may sometimes be possible to alter the course of the disease and to prevent intrauterine fetal death or the need for premature termination of the pregnancy.

Multiple Pregnancy. Labor in twin pregnancy usually begins about two weeks before term but in some women the cervix may efface and dilate and the membranes rupture even earlier. This is undoubtedly a result of uterine distention and cannot always be prevented but patients with multiple pregnancies should not leave the community after the 30th week and during the last few weeks should spend much of their time resting in an attempt to reduce the pressure on the forebag.

Repeated Premature Labor. If labor begins prematurely in successive pregnancies and the internal cervical os is intact, an hysterosogram should be performed after the uterus has involuted because a development-

tal uterine anomaly may be the cause. If the uterus appears normal and no other cause can be discovered, it is possible that an endocrine abnormality may be responsible but one can not often substantiate such a supposition. A basal metabolic rate should be determined on both the husband and wife and, if either is reduced or if either individual has symptoms which suggest hypometabolism, thyroid extract should be prescribed even though the tests are normal. Large doses of estrogen and progesterone are not likely to reduce the incidence of premature labor and need not be advised. Emotional factors may influence the course of pregnancy and if the patient is psychologically unwilling or unable to accept a child the course of the pregnancy may be interfered with through the unconscious.

THE MANAGEMENT OF PREMATURE LABOR

It is not always possible to prevent the early termination of pregnancy, and when labor does begin several weeks before term special precautions must be taken to protect the infant. The increased survival of premature infants is primarily a result of improvements in pediatric care but a low mortality can only be achieved if the baby is born uninjured and undepressed. The physician who delivers the infant can influence the end result considerably by the manner in which he conducts the labor.

Analgesia. Analgesic and sedative drugs, such as morphine sulfate and the barbiturates, which are administered to the mother cross the placenta and exert their effect upon the infant. If the baby is of normal size and if the dosage of the drug is not excessive, and if none is given during the last two hours before delivery, little harm comes from the usual analgesic regimens but the mortality in premature infants may be increased even though the amount is small and the drug is administered early in labor. Since most of the preparations which are used to control pain during labor depress the respiratory center, the infant may be narcotized and, if already handicapped by prematurity, it may be unable to initiate and maintain adequate respiratory activity after it is born.

If caudal analgesia can be given safely it provides an excellent means for relieving the pain of premature labor while influencing the oxygenation of the fetus only slightly and without interfering with its subsequent respiration. Since caudal should not

be used unless experienced individuals can be responsible for its administration it is not always available. Saddle block anesthesia can be induced in the primigravida when the cervix is about 8 cm. dilated if the labor is progressing normally and if the head is close to the pelvic floor. In many multiparous women and a few primigravidae progressive descent will cease after saddle block is given and it should not often be used in parous patients. Local infiltration of the skin of the abdominal wall and across the back will frequently relieve the pain accompanying the uterine contractions, particularly the deep pelvic pressure. A linear wheal is raised with $\frac{1}{2}$ to 1 per cent procaine above the inguinal ligaments between the anterior superior iliac spines and a similar one between the posterior spines. This procedure may be used in the home as well as in the hospital and may be repeated if pain recurs.

Fetal Heart. The earliest evidence of anoxia in the fetus is a depression in its heart rate or the development of irregularities in rhythm. The first change can be detected during a contraction but as anoxia increases and brain damage becomes more pronounced the altered rate and rhythm will also be present when the uterus is relaxed. The fetal heart tones should be counted at least every 30 minutes and, if an abnormality is detected, oxygen should be administered to the mother and an attempt should be made to determine a cause.

Membranes. The forebag serves as a cushion which precedes the head through the dilating cervix thereby reducing the pressure exerted upon it. If labor is progressing normally the membranes should not be ruptured artificially but if the uterus is overdistended and the contractions are weak and ineffectual, perforation of the sac may improve the labor and permit earlier delivery.

DELIVERY OF THE PREMATURE INFANT

Every effort must be made during the delivery to avoid injuring the infant and to maintain adequate oxygenation.

Anesthesia. Inhalation anesthetic agents cross the placenta and anesthetize the infant as well as the mother. The oxygen content of the blood of babies delivered with inhalation anesthesia is lower than those delivered without an anesthetic or with regional technics; in addition, normal

oxygenation of the blood of premature infants may be delayed longer than in term babies because of their relatively undeveloped respiratory mechanisms. Regional methods are far safer for premature delivery and the caudal and saddle block techniques are satisfactory for most deliveries in primigravidae unless their use is contraindicated. Almost all multiparae can be delivered comfortably with pudendal block anesthesia or with simple local perineal infiltration with $\frac{1}{2}$ to 1 per cent procaine. Necessary cesarean sections can be performed with spinal anesthesia or local infiltration of the abdominal wall.

Episiotomy. The resistance of the perineum in primigravidae and in many multiparae should usually be eliminated by a deep episiotomy. There is a tendency to avoid making an incision for the delivery of a small baby but this is unwise because the elimination of muscular resistance at the outlet will reduce the trauma to the structures within the fetal skull.

Method of Delivery. Outlet forceps extraction to shorten the perineal phase of the labor has been used as an additional means of preventing injury to the fetal head. In most primigravidae or whenever a prolonged terminal phase is anticipated forceps delivery may be helpful but if the second stage is progressing rapidly spontaneous termination is entirely satisfactory.

Cesarean Section. Although cesarean section may be necessary in certain instances of placenta previa, abruptio placentae or toxemia, it does little to increase the survival of premature infants. The hyaline membrane occurs more often in premature infants born by cesarean section than in those delivered vaginally; in addition, if it is necessary to cut the placenta or if it is torn during delivery, the fetus itself will bleed.

Breech Delivery. The circumference of the head of the premature infant is larger than that of the shoulders, consequently the body can be delivered through an incompletely dilated cervix which will not permit the aftercoming head to pass and the infant may die or be injured during the attempts at extraction. If this does occur and the head cannot be drawn through the cervix, the infant's body should be elevated, the perineum depressed with a right angle retractor, and the posterior lip of the cervix incised deeply enough to allow the head to

descend. If the head is hydrocephalic it may be punctured through the occipital foramen or a suture.

Management of the Cord. During the early part of the third trimester proportionately more of the total fetal blood volume is contained in the placenta and less in the infant itself than at term. If the cord is clamped immediately much of the blood which could be transferred to the infant will remain in the placenta and be discarded. This will hasten the development of anemia. Before the clamps are applied the cord should be milked from the vulva toward the infant until no more blood appears in the vessels.

Care of the Infant Following Delivery. After the cord has been stripped, clamped and cut, the baby should be placed in a heated crib with its head slightly lower than the rest of the body to facilitate the drainage of mucus from its trachea. The mouth and nasopharynx can be cleared of secretions with a rubber bulb syringe. If the baby is breathing normally, no further manipulation is necessary but if respirations have not yet been initiated and cannot be started by rubbing the infant's back or gently snapping its toes, the trachea should be intubated with a tracheal catheter or through an infant laryngoscope to permit aspiration of the secretions and the delivery of oxygen directly to the lungs. This can be accomplished by alternately expanding the lungs by breathing through the catheter and deflating them by releasing the pressure and compressing the infant's chest slightly. After spontaneous respiratory efforts have been initiated the catheter can be removed and an oxygen mask applied over the infant's face. Coramine and other respiratory stimulants are rarely necessary and in the usual doses may even be harmful. The stomach contents should be removed by aspirating them thoroughly with a 10 F soft rubber catheter. This will prevent their entry into the respiratory tree if the infant regurgitates.

After the infant is breathing reasonably well, the cord has been tied and the eyes treated, it can be removed to the premature nursery and placed in an incubator where it is given the usual premature care.

CONCLUSIONS

Although the advances in pediatric care have been responsible for a remarkable improvement in the survival of incompletely

developed infants, prematurity and its complications account for most of the neonatal mortality. Premature termination of pregnancy can sometimes be prevented if the responsible cause is recognized and corrected but in most instances there is no way of

anticipating that labor will begin early. If every effort is made to protect the small infant from injury, anoxia and infection, and if it enters the premature nursery in the best possible condition, the mortality rate can be kept relatively low.

LEG LENGTH INEQUALITY TREATED BY EPIPHYSEAL ARREST AND STIMULATION

A PRELIMINARY REPORT

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The purpose of this paper is to present the preliminary findings from the analysis of 39 cases of leg length inequality treated on the Crippled Children's Service during the past four years by epiphyseal arrest and epiphyseal stimulation. This group of cases is taken from some 80 cases of leg length inequality being studied on the Crippled Children's Service.

INTRODUCTION

Inequality of the long bones of the lower extremities is a formidable problem for the orthopedist. If not corrected, leg length inequality creates a disabling physical deformity of the body and an unsightly appearance of anatomy and gait. Inequality of leg length may result from either overgrowth of a long bone or reduced growth in length. Overgrowth of an extremity has been said to result from numerous causes, namely: 1) congenital hypertrophy, 2) arteriovenous aneurysm, 3) hemangioma, 4) osteomyelitis, 5) fracture, and 6) von Recklenhausen's neurofibromatosis. Causes of reduced length have been reported to result from 1) poliomyelitis, 2) congenital hemiatrophy, 3) chondrodysplasia or Ollier's disease, 4) destruction of the epiphyseal plate secondary to trauma or infection in the growing child, and 5) loss of bone length from trauma or other causes.

Small amounts of inequality usually present little or no problem in the adult patient in that as much as $\frac{1}{2}$ to $\frac{3}{4}$ of an inch is thought to be of little clinical significance by many clinicians. However, other clinicians indicate such a small discrepancy may manifest its seriousness in the form of back pain eventually and especially after the patient reaches 40 years of age. In either case

the small discrepancy may be corrected by adjustments of heel heights or shoe lifts. This type of treatment for inequality of greater amounts presents greater problems in that not only is the built-up shoe undesirable in appearance but it is an added burden for the occasional flail extremity.

The most challenging problem is perhaps the existing sizable discrepancy in a growing child with its future implications. For example, the post-polio child five years of age with an existing difference of two inches not only has the material increase in leg length difference and its associated deformities of the limb to be expected but perhaps the initiation or aggravation of a dorsolumbar scoliosis.

HISTORY

Inequality of limb length has always been a challenge to the orthopedist as is shown by the past 100 years of orthopedic history. Rizzoli in 1845 perhaps made the first attempt toward correction of leg length inequality when he allowed fragments of a fractured femur to override. Codivalla shortened a femur by open operation at the beginning of this century. Realizing that operative therapy was more acceptable in the afflicted extremity than the normal, Magnuson, in 1913, reported a method of lengthening of the femur by step-cut osteotomy. Along in the same decade, Taylor, Shands and Calve' presented methods of femoral shortening. Putti in 1921 presented a method of lengthening which was followed by Abbott's method (1928). The wave of enthusiasm associated with the methods of lengthening receded, and these methods fell into disfavor after many serious complications were encountered. Leg

shortening again gained favor. Another method of shortening was presented in 1935 by J. Warren White.

Growth arrest in the long bones was first said to be accomplished by Ollier (1888). Pheister in 1933 reported his method of arrest of longitudinal growth by curetting and grafting the epiphyseal plate done at the appropriate age indicated by a growth chart. Accuracy of growth charts then became of great interest and a number of these were compiled. (Baldwin, Hatcher, Gill and Abbott, and Green and Anderson.)

Roentgen radiation of the epiphyseal plates, which is known to retard growth, has been tried and has been discarded because of undependable results and soft tissue damage.

Mechanical epiphyseal arrest by the use of metallic staples was initiated by Blount in 1944 and has been widely used since. Haas is given credit for temporary arrest of epiphyseal growth. He discovered, by encircling the epiphyseal plate with a wire loop, that longitudinal growth was arrested until the wire broke or was removed after which growth was resumed. It was then realized that the stapling method could be ideally applied to cases of leg length inequality utilizing temporary growth arrest. Epiphyseal stapling is said to have first been done by Lane in the first decade of this century.

Localized acceleration of growth of long bones has long been observed. Von Langenbeck implanted ivory pegs in the femur and tibia of dogs in 1869 and reported increased rate of growth. Ollier found favorable results after using a lead nail in the tibia of a child in 1889. Other investigators (namely, Meisenbach 1910, Bohlman 1929, Ferguson 1933, and Wu and Miltner 1937) have attempted to produce stimulation of epiphyseal growth by implantation of many different types of foreign bodies adjacent to the epiphysis in small animals. No appreciably favorable results were reported by any of the investigators. Pease (1952) presented a preliminary report dealing with local stimulation of growth in the cases reported. He pointed out that many people who have children with disabled limbs on one side do not desire any operative interference on the normal legs. Also, he stated, not infrequently have there been some unhappy results from epiphyseal arrest in the normal extremity.

PRESENTATION OF CASES

A total of 39 cases of leg length inequality has been reviewed. These cases have been divided into three categories for purposes of analysis as follows:

SUMMARY

	Total Followed	Average Time	Total Average Gain
<i>Category I Epiphyseal Arrests</i>			
Pheister type			
Femur only (2 cases)	38.5 mo.	1.38 inch	
Tibia and femur (2 cases)	18.5 mo.	1.0 inch	
Epiphyseal staplings			
Femur only (2 cases)	26.5 mo.	0.5 inch	
Tibia and femur (18 cases)	22.5 mo.	0.72 inch	
<i>Category II Epiphyseal Stimulation</i>			
Femur only (3 cases)	19.5 mo.	0.12 inch	
Tibia and femur (5 cases)	10.2 mo.	0.11 inch	
<i>Category III Epiphyseal Stimulations and Staplings (done simultaneously)</i>			
Femur only (3 cases)	14.3 mo.	0.25 inch	
Tibia and femur (4 cases)	15 mo.	1.0 inch	

The average age of the patient having the Pheister type of epiphyseal arrest was 14 years, for staplings 11.6 years. The average age for the patient having the stimulations was 8.4 years. The etiology of leg length discrepancy was polio in 35 cases. Trauma was the primary cause in one case. Congenital shortening accounted for the other three cases.

METHODS OF STUDY

All measurements were consistently made using a tape measure with the patient lying in a recumbent position. The anterior superior iliac spine and the medial malleolus were used as bony landmarks for the measurements. Clinical measurements have been confirmed approximately with roentgenographic measurements in most cases. The method for roentgenographic measurement utilized not actual lengths but differences in limb length (fig. 1). The technique consists of using the perpendicular rays with standard tube distance and making three successive exposures of the immobilized patient, over hips, knees, and ankle joints, respectively. These exposures are superimposed on one 14 x 17 cassette which is divided into three equal parts by using two pieces of lead-impregnated sheet rubber. On the dry film (fig. 1) the actual distance from a comparable point on the fem-

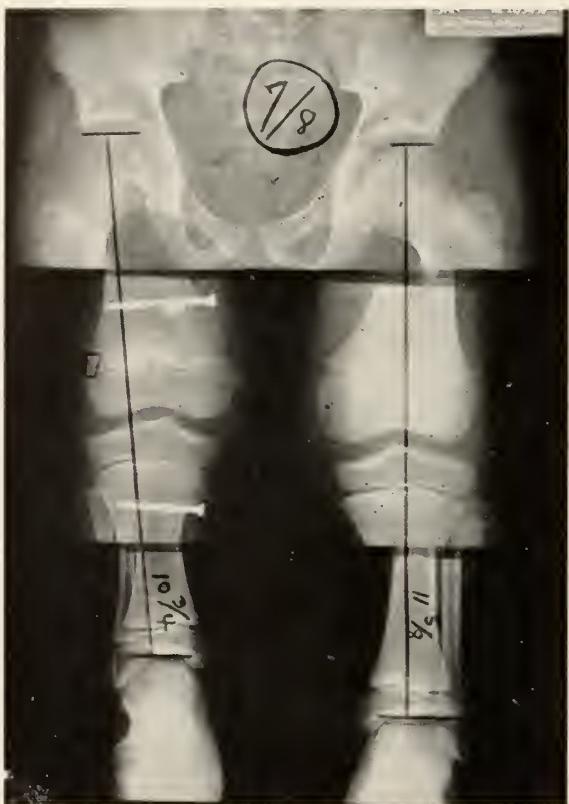


Fig. 1

oral head to a comparable point in the ankle joint is measured. The difference in these distances represents approximate difference in limb length. The approximate difference in length of each individual bone of the extremity may be calculated by this method if desired. No doubt some element of error exists in both clinical and roentgenographic methods of measurement presented in this paper. However, in the series of cases presented the inaccuracies of measurement are believed small and of little clinical significance. Great care was taken to exclude from this series cases in which values were obtained from uncertain or inconsistent methods of measurement.

The technique of surgical procedures utilized in the different categories are of great importance and need to be discussed. Minor variations in technique occurred as different surgeons performed the procedures. The Phemister epiphysiodesis was done by exposing epiphyseal plate and taking a block of bone 2 x 1 cm. from across the block for 2 cm. In most cases the epiphyseal plate of the fibula was excised but not in all cases. The amount of cartilage taken from the plate varied as did the size of the bone block. The bone block was, of course, removed from both medial and lat-

eral sides of the long bones described in this report.

More stripping of the periosteum was done in some cases than others and a varying amount of soft tissue trauma occurred at the site of the surgical wound.

Staplings were accomplished by exposing the epiphyseal plate through separate wounds by elevating the periosteums, after which three or four metallic staples were inserted perpendicularly across the plate. The staples were left only if they were solidly imbedded in bone. Confirmatory x-rays were made on the operating table in most cases. Varying amounts of stripping of the periosteum occurred from case to case.

The epiphyseal stimulations were done by exposing the cartilaginous plate by elevating the periosteum and inserting two metallic screws (stainless steel) into the metaphysis adjacent to the plate. The screws were usually placed at right angles to each other. This procedure was accomplished through one surgical wound at each epiphyseal plate. Occasionally a screw would inadvertently be inserted into the plate, withdrawn and reinserted into the metaphysis after studying the position of the screws by x-ray taken on the operating table.

In category III the stapling procedure was carried out on the normal extremity and the stimulation procedure was simultaneously done on the short extremity.

COMPLICATIONS

SUMMARY

	Number of Cases	Per Cent
Category I Epiphyseal Arrests		
Phemister types (total 4 cases)		
Knock-knee deformity	1	25%
Epiphyseal staplings (total 20 cases)		
Number of patients having complications	11	55%
Knock-knee deformity	4	20%
Bowleg deformity	2	10%
Recurvatum deformity	6	30%
Pain from loose staples	6	30%
Broken staples	3	15%
Category II Epiphyseal Stimulations		
(Total 8 cases)	None	
Category III Epiphyseal Staplings & Stimulations (Total 7 cases)		
Staplings		
Knock-knee	1	14%
Recurvatum	1	14%
Stimulation		
Loose screw	1	14%

The complications associated with epiphyseal staplings appear excessive. It is important to realize that as many as three complications enumerated above (knock-knee, recurvatum and pain from loose staples) occurred in a single patient in a few instances. Therefore, the number of patients having complications in the epiphyseal group is actually as significant as the above chart might suggest.

CONCLUSIONS

The number of cases in each category is obviously too small to draw any valid conclusions from. However, these observations can be made:

1. Epiphyseal stapling appears to offer a more rapid correction of the leg length inequality in the successful cases and can be used in patients of a younger age group than the Phemister type of epiphysiodesis. It is the only useful method of temporary epiphyseal arrest.

2. Epiphyseal stapling in the cases presented has been accompanied by a sizable number of complications, a few producing deformities which are believed in the future to result in disabilities of a magnitude greater than the untreated leg length inequality.

3. The sizable number of complications associated with epiphyseal staplings materially increase the number of surgical procedures to be performed on the already frequently operated upon polio patient.

4. Serious complications can also result from the Phemister type epiphysiodesis.

5. Although the epiphyseal stimulation procedure appears to have been an innocuous one, the amount of gain realized in this category has been very small and in many cases of little clinical value.

6. Growth stimulation is believed to result for only a short period following the epiphyseal stimulation, perhaps six months or less.

7. The most meticulous and standardized surgical technique should be observed when surgery is done in the region of the growing epiphyseal plate in order to obtain a predictable postoperative result.

SUMMARY

A review of 39 cases of leg length inequality treated by epiphyseal arrest and epiphyseal stimulation has been presented. The amount of gain and complications encountered are presented.

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- Low Back Disorders**—Flexion and stretching exercises are used to treat mechanical derangements of low back conditions. The advantage of these exercises is that they are simple, yet accomplish the basic necessity of stretching the tightened or contracted ligaments and back muscles and strengthening the two important postural muscle groups, to wit, abdominal and gluteal muscles, which are insufficiently used in ordinary daily living. An average person seldom uses his abdominal muscles, except once daily while getting up from bed. The glutei are likewise rarely used. These exercises produce satisfactory results in 85 to 90 per cent of patients. The physician should always remember that this type of treatment should be given only to properly selected patients who can reasonably benefit from these methods. The majority of patients will not require the utilization of complicated or expensive apparatus. Office treatment is usually most successful when supplemented by a well regulated home program.—*von Werssowetz, South. M. J.*, July '54.

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Medical Association of the State of Alabama

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DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

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THE MONTH IN WASHINGTON

During the next three years the federal government expects to help finance the construction of thousands of new medical and dental facilities—diagnostic-treatment clinics, vocational rehabilitation centers, nursing homes, and chronic disease hospitals. Only three strings are attached: the facilities must be non-profit, they must be under medical or dental supervision, and local communities must raise part of the cost.

Legislation establishing the new program was enacted just as Congress plunged into its adjournment rush, and before it had come to final decisions on reinsurance and other major controversial bills in the health field.

The new operation was authorized by amending the Hill-Burton Act (passed in 1946 to assist hospitals) to permit grants to units that do not qualify as hospitals. Under the original Hill-Burton law, grants could be made to rehabilitation centers and diagnostic-treatment clinics only if they were attached to hospitals. Grants could also be made to chronic disease hospitals. The new law authorizes help to centers and clinics operating on their own, a provision Public Health Service expects to be of particular assistance to smaller communities. It also offers aid to nursing homes, which previously were not covered.

In the case of chronic disease hospitals, it is explained that the law offers two new inducements for construction: 1. Money is allocated to the state and earmarked for this particular type of hospital. 2. The federal government will be able to pay 50% or more in all cases, whereas under the old law the U. S. share was as low as one-third in some of the higher-income states.

Grants to clinics, centers, and nursing homes will have to wait on state surveys to determine priorities, according to U. S. hospital officials. However, if local sponsors take the initiative, grants can be processed immediately for chronic disease hospitals, as earlier Hill-Burton surveys have established their priorities. Failure of communities to construct chronic disease hospitals was one of the disappointments of the first Hill-Burton program.

The first year's appropriation will be \$37.4 million, increasing over the next three years until the total authorization of \$182 million has been reached. The new proj-

ects in no way interfere with the regular Hill-Burton grants for construction of hospitals, for which \$75 million is available this year.

The final flurry over the reinsurance bill was preceded by a concerted drive by the administration. The President himself interceded with insurance company officials, and Secretary Hobby agreed to amendments in an effort to satisfy the state insurance commissioners. The commissioners, who would have an important role in administering the reinsurance program, at first had flatly opposed it. President Walter B. Martin and other A. M. A. officials were called in for a discussion of reinsurance at the Department of Health, Education, and Welfare, and later Sherman Adams, assistant to the President, also invited Dr. Martin to a White House meeting on the same subject.

As expected, bills for a new program of medical care of military dependents were left stranded when adjournment time approached. Before he introduced his bill on the subject, Chairman Dewey Short of the House Armed Services Committee insisted that Defense Department estimate first year's additional cost of the program. The estimate was \$67 million.

The military scholarships bill met the same fate—too much time taken up in drafting a version that would satisfy all executive departments. Under this plan the Defense Department would grant tuition-and-maintenance scholarships to medical and dental students, in exchange for pledges to spend one year in military service for every subsidized year of training. Both bills are certain to reappear next session.

For the current fiscal year, the Department of Health, Education, and Welfare has available \$1,663,413,761. The appropriation bill is \$10,904,500 more than the administration requested but under last year's budget of \$1,927,432,261 (the decline explained by decreased public assistance grants to states). Public Health Service has \$228,060,000 for its regular programs.

POLIO VACCINE TRIAL NEEDS PHYSICIANS' AID

More than 600,000 children have completed three inoculations in the field test of the trial polio vaccine developed by Dr. Jonas E. Salk of the University of Pittsburgh. The

emphasis now shifts to the evaluation study under the direction of Dr. Thomas Francis, Jr., University of Michigan School of Public Health. The validity of the evaluation is dependent upon data gathered on poliomyelitis cases in the test groups, *including those children in the first three grades who did not get vaccine.*

In addition, data on cases among family members of participating children are an integral part of the study. Since the number of poliomyelitis cases among the test groups may not be large, it is essential that all cases be completely reported. Early diagnosis, prompt reporting and follow-up, and the securing of *necessary epidemiologic information and laboratory specimens* are important factors in the evaluation.

An outline of procedures and copies of necessary forms have been sent to local and state health authorities. It is important that physicians in areas where vaccinations were not given cooperate in the study by notifying local or state health officers of cases occurring among children who participated in the trials and then migrated to another area and children who go to summer camps. Local health officials also need information on participating children who receive injections of gamma globulin.

This phase of the study will depend, to a large degree, on the wholehearted cooperation of practicing physicians.

ROUNDUP STORY

HOUSE OF DELEGATES AMERICAN MEDICAL ASSOCIATION

JUNE 21-25, 1954

Fee splitting, osteopathy, closed panel medical care plans, veterans' medical care, and the training of foreign medical school graduates were among the major subjects of discussion and action during the sessions of the House of Delegates at the American Medical Association's 103rd annual meeting June 21-25 in San Francisco.

Named as president-elect for the coming year was Dr. Elmer Hess of Erie, Pa., who, until his election, was serving as a member of the House of Delegates and as chairman of the Council on Medical Service. Dr. Hess will become president of the American Medical Association at the June 1955 meeting in Atlantic City, succeeding Dr. Walter B. Martin of Norfolk, Va. Dr. Martin took of-

fice at the Tuesday evening inaugural session in San Francisco's Palace Hotel.

The House of Delegates voted the 1954 Distinguished Service Award of the American Medical Association to Dr. William Wayne Babcock of Philadelphia for his outstanding contributions to medicine and humanity. Dr. Babcock, who was professor of surgery and clinical surgery at Temple University School of Medicine from 1903 to 1944, received the award from Dr. Martin at the Tuesday evening inaugural ceremony.

The final registration total for the San Francisco meeting was expected to reach approximately 35,000, including more than 12,000 physicians.

FEE SPLITTING

The House adopted a supplementary report of the Reference Committee on Miscellaneous Business which recommended acceptance of a Judicial Council report on the subject of billing and made the additional recommendation "that the House of Delegates resolve that it firmly opposes fee splitting, rebating or payment of commissions in any guise whatsoever, and that it further opposes any mechanism that encourages this practice."

The Judicial Council report included the following statements:

"The Judicial Council is of the opinion that the only new facet concerning this subject that has come up recently is the case of joint billing to some of the non-profit insurance companies. In many cases these insurance companies insist on a joint or combined bill, but the bill is being paid in most instances by two checks. This is not considered unethical and all insurance plans which do not pay the individual physician in this manner should be urged to do so.

"The Judicial Council is still of the opinion that when two or more physicians actually and in person render service to one patient they should render separate bills.

"There are cases, however, where the patient may make a specific request to one of the physicians attending him that one bill be rendered for the entire services. Should this occur it is considered to be ethical if the physician from whom the bill is requested renders an itemized bill setting forth the services rendered by each physician and the fees charged. The amount of the fee charged should be paid directly to

the individual physicians who rendered the services in question.

"Under no circumstances shall it be considered ethical for the physician to submit joint bills unless the patient specifically requests it and unless the services were actually rendered by the physicians as set out in the bill."

OSTEOPATHY AND MEDICINE

Four resolutions dealing with the osteopathic problem were considered. The House accepted a recommendation by the Reference Committee on Medical Education and Hospitals and adopted a supplementary report of the Board of Trustees on a report of the Committee for the Study of Relations Between Osteopathy and Medicine:

"The justification or lack of justification of the 'cultist' appellation of modern osteopathic education could be settled with finality and to the satisfaction of most fair-minded individuals by direct on-campus observation and study of osteopathic schools. The committee, therefore, proposed to the conference committee of the American Osteopathic Association that it obtain permission for the Committee for the Study of Relations between Osteopathy and Medicine to visit schools of osteopathy for this purpose.

"The conference committee favorably recommended this proposal to the board of trustees of the American Osteopathic Association which considered it at a special meeting on Feb. 6-7, 1954. It has referred the question to its house of delegates which will act upon the proposal in July 1954. If the action of the house of delegates of the American Osteopathic Association be favorable, the on-campus observations can be carried out in the fall of this year.

"The committee therefore recommends:

"1. That no action be taken on the report at this time and that final action be deferred until December 1954.

"2. That the committee be continued until December 1954 in order to be available to evaluate education in schools of osteopathy should the house of delegates of the American Osteopathic Association act favorably upon the recommendation of its conference committee."

CLOSED PANEL PLANS

The much-publicized New York resolution, calling for several changes in the Principles of Medical Ethics relative to partici-

pation in closed panel medical care plans, was considered by the Reference Committee on Miscellaneous Business. That committee made the following recommendation, which was adopted by the House:

"In the discussion before your reference committee on this resolution, it became apparent to the committee that clarification and interpretation of the Principles of Medical Ethics in relation to prepaid medical care plans are desirable. As set forth in the by-laws, the Judicial Council has jurisdiction on all questions of medical ethics.

"Therefore, your reference committee recommends that the House of Delegates request the Judicial Council to . . . investigate the relations of physicians to prepaid medical care plans and render such interpretations of the Principles of Medical Ethics as the Council deems necessary, and report to the House of Delegates not later than the next annual meeting of the Association.

"The committee further recommends that the New York resolution be referred to the Judicial Council for consideration in connection with this investigation."

The New York resolution, among other suggested changes, would add the following new paragraph to Chapter I, Sec. 4, "Advertising," of the Principles of Medical Ethics:

"It should be understood that any medical care plan, company, or organization which advertises for subscribers and directs such subscribers to a restricted panel of physicians for medical care is advertising for the benefit of the physicians involved."

VETERANS' MEDICAL CARE

Accepting a report by the Reference Committee on Legislation and Public Relations, the House adopted two strong resolutions condemning the present practice of establishing service-connection for veterans' disabilities by legislative fiat. In recommending passage of both resolutions, the committee said:

"The study of the chronological expansion by law and regulation, together with evidence presented of pending legislation now before a congressional committee, emphasize all too clearly the imperative need of decisive action on the part of the American Medical Association.

"It is the opinion of the committee that the time is at hand when the American

Medical Association and its component societies should go all out in preventing this unscientific method of determination of service-connected disabilities, and that we respectfully request that copies of these resolutions be transmitted to the Congress of the United States and other appropriate federal agencies."

In connection with veterans' medical care, the House also adopted recommendations by the Reference Committee on Insurance and Medical Service which reaffirmed the policy on non-service-connected disabilities, established at the 1953 annual meeting, and which commended the informational program carried out since then by the Committee on Federal Medical Services of the Council on Medical Service.

FOREIGN MEDICAL GRADUATES

Three resolutions and a Board of Trustees supplementary report were submitted to the House regarding the evaluation of foreign medical school graduates, a subject which attracted major interest earlier this year at the annual Congress on Medical Education and Licensure in Chicago. The Reference Committee on Medical Education and Hospitals spent much of its time listening to the ideas and proposals of various state medical societies, state licensing boards, members of the Council on Medical Education and Hospitals and others. The reference committee recommended that "the intent and aims of this supplementary report and the three resolutions can best be met by referring the entire problem to the Council on Medical Education and Hospitals for further study. It is recommended that the Council report at the interim session in 1954 regarding the progress relative to this study." The House adopted the reference committee's recommendations.

SEAL OF ACCEPTANCE

The Council on Medical Service presented a supplementary report outlining the difficulties encountered in conducting the Seal of Acceptance program, and recommending discontinuance of the Seal of Acceptance for voluntary health insurance plans. The report said that the standards and principles of the program will be maintained as guides and recommendations for all groups operating or establishing plans. The House, on recommendation of the Reference Committee on Insurance and Medical Service, adopted the Council report, thus terminat-

ing the Seal of Acceptance program for voluntary health insurance plans.

REGISTRATION OF HOSPITALS

The House also approved a Board of Trustees report calling for discontinuation of the registration of hospitals by the Council on Medical Education and Hospitals and suggesting that the Joint Commission on the Accreditation of Hospitals be requested to undertake the registration of hospitals in addition to its present accreditation activities.

MISCELLANEOUS

Among a wide variety of other actions, the House also:

Voted to continue the holding of the annual clinical meetings;

Approved the establishment of a program of medical military scholarships with appropriate safeguards limiting the number of students involved;

Approved the extension, on a voluntary basis, of the Medical Education for National Defense program which currently is in operation in five medical schools as a pilot study, and

Authorized the Council on Scientific Assembly to conduct a thorough study of the use of tape recordings of the material presented at meetings of the Council, and asked for a report at the December meeting.

OPENING SESSION

Highlights of the opening House session on Monday were selection of Dr. Babcock as recipient of the Distinguished Service Award and the addresses by Dr. Edward J. McCormick of Toledo, then president of the Association, and Dr. Martin, then president-elect.

Dr. McCormick called upon the medical profession to take the guess work out of medical costs by adopting average fee schedules on an area or regional basis. The Reference Committee on Reports of Officers later suggested that the Board of Trustees make a study of such programs where they already are in operation, and the House approved.

Dr. Martin, in his opening session address, declared that the most urgent problem before the medical profession is that of financing hospital services to make them more generally accessible. In his presidential inaugural address, Dr. Martin said that physi-

cians are duty-bound to keep themselves informed on public matters affecting the medical welfare of the people, and he also urged doctors to "reach back farther than the disease" in treating their patients.

SPECIAL CITATIONS

Two special citations were presented by the Association during the San Francisco meeting. During the presidential inauguration ceremony Dr. McCormick presented an award to a fellow Toledoan, Dr. Nicholas P. Dallis, for his outstanding health educational service as the writing member of the team that produces the illustrated feature, "Rex Morgan, M. D." At the closing House session on Thursday, Dr. Martin presented a special citation to Smith, Kline & French Laboratories of Philadelphia for "pioneering use of television in bettering the health of the nation." The plaque was accepted for the company by Mr. Francis Boyer, president.

The closing session also brought the announcement that the California Medical Association had presented a check for \$100,000 to the American Medical Education Foundation.

ELECTION OF OFFICERS

The election at the closing session brought the following results, in addition to the selection of Dr. Hess as president-elect:

Dr. Clark Bailey of Harlan, Ky., was named vice-president.

Dr. David B. Allman of Atlantic City and Dr. F. J. L. Blasingame of Wharton, Texas, were reelected to their positions on the Board of Trustees.

Also reelected were Dr. George F. Lull of Chicago, secretary; Dr. J. J. Moore of Chicago, treasurer; Dr. James R. Reuling of Bayside, N. Y., speaker of the House of Delegates, and Dr. Vincent Askey of Los Angeles, vice-speaker.

Dr. J. Morrison Hutcheson of Richmond, Va., was named by Dr. Martin as a member of the Judicial Council to succeed Dr. Edward R. Cunniffe of New York, who served as Council chairman for many years. Dr. Homer Pearson of Miami, Fla., was elected new chairman.

Dr. W. Andrew Bunten of Cheyenne, Wyo., was elected a new member of the Council on Medical Education and Hospitals, succeeding Dr. W. L. Pressly of Due West, S. C. Dr. Charles T. Stone, Sr., of

Galveston, Texas, was reelected to the same Council. Both terms run to 1959.

Dr. Floyd S. Winslow of Rochester, N. Y., was reelected to the Council on Constitution and By-Laws for a term ending in 1959.

Dr. Joseph D. McCarthy of Omaha, Neb., was reelected to the Council on Medical Service for another term running to 1959. To fill the vacancy created on the same Council by Dr. Hess' resignation following his election as president-elect, Dr. Robert L. Novy of Detroit, Mich., was selected.

The House of Delegates also chose New York City as the place for the 1957 annual meeting, San Francisco for 1958 and Atlantic City for 1959. Previously selected were Atlantic City for 1955 and Chicago for 1956. The dates of next year's meeting in Atlantic City are June 6-10.

A RESOLUTION

WHEREAS, The Lord endowed our colleague, Dr. Edward Simmons Sledge, with high qualities of intellect, conviction, and courage; and,

WHEREAS, These attributes and his great knowl-

edge of medicine and of people, gained through his own conscientious endeavors, were employed not only for the benefit of his many patients but also for the common welfare and for professional progress; and,

WHEREAS, His opportunities for service and leadership included Presidency of this Society and of the State Medical Association, membership on the State Committee of Public Health, and on the Board of Trustees of the State Hospitals for the Insane, the teaching of medicine, and medical military service, as well as innumerable plans and actions locally in support of medical and public health services; and,

WHEREAS, Death has come to this valuable physician at the age of 66 years; therefore be it

Resolved, By the Medical Society of Mobile County, that we express hereby, for the medical profession and for the citizens of this County and State, the respect we hold for the character and the gratitude we feel for the services of Dr. Edward Simmons Sledge; and be it further

Resolved, That copies of this Resolution shall be sent to the family of our deceased colleague, to the Secretary of the State Medical Association, and to the press.

Signed: Carlton Winsor, M. D.
Secretary

Adopted by

The Medical Society of Mobile County
in meeting March 18, 1954

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

WHAT DO PATIENTS KICK ABOUT?

W. A. Dozier, Jr.

Director of Public Relations

In this process of producing good public relations, one often wonders just what points to emphasize, which ones to touch upon lightly, and which to overlook completely. Perhaps the basic question behind it all is simply just what do the patients find displeasing, what do they kick about? Once this is known, part of the battle is won.

Some interesting figures have been released by the Kings County, New York, Medical Society. An analysis of forty cases handled by the Society's Mediation Committee during 1952-53 showed the following breakdown of complaints:

- 14—Improper diagnosis or treatment.
- 6—Failure to explain costs.
- 6—Failure to make call where patient knew doctor.

- 4—Overcharging.
- 3—Failure to give reports to patients on their conditions.
- 2—Failure to treat patient in an emergency.
- 2—Refusal to treat patient.
- 2—Not doctor patient thought would treat him.
- 1—Criticism of other doctor to patient.
- 1—Failure to follow up on patient's case.
- 1—Type of bill submitted.
- 1—Improper examination.

It is granted that perhaps these complaints might not be the ones found if a comparable study could be made in Alabama, but they do raise some interesting conjectures.

Of particular interest is the fact that fourteen complained of improper diagnosis or treatment. For the nonce, let us assume that perhaps this number includes a normal amount of errors in diagnosis or treatment. In the rest of the cases then, there arises the

question of how did the patient know that the diagnosis or treatment was wrong? Because he later went to another physician who cured him? That cannot be the whole story, for how was the patient to know that the first diagnosis and treatment did not actually do the job but that relief came only after a lapse of time? Perhaps another physician told the patient how wrong the first doctor was. Doubtlessly this occurs, but it is hard to imagine that this fully answers the question of how did the patient arrive at the conclusion that an error had been made.

The possibility that is most intriguing is the case of Mrs. A. She goes to Dr. B who diagnoses and treats her ails. During all this time Dr. B merely states to Mrs. A that she has so-and-so—no frank discussion on the symptoms, the method of arriving at a diagnosis, the time period needed to see any improvement, the possibility of a return of the complaint, or any of the other information that every patient wants to know. So Mrs. A discusses the matter with a neighbor. Between them they decide that Mrs. A has the same trouble the neighbor had several years ago and that Dr. C is the man to treat her. Dr. C sees Mrs. A, treats her (perhaps for the same thing Dr. B treated for), and she gets well. After talking again with the neighbor, Mrs. A decides to put her case before the mediation committee of the local county medical society.

No, you are thinking. The above example is too far fetched. Is it? Listen to many people talk, and you will find that they have a great complaint concerning the information given them by the physician. Patients today are more capable of understanding their cases than they were some years ago. The level of education has risen, and people resent being brushed off. Let us hasten to admit that there are many times when a physician rightly withholds information for a short time. Such is his decision. However, there is something wrong when an intelligent person says, "I can't get a thing out of Dr. Blank. If he would only tell me what he is thinking it might be, what he is ruling out, why we don't know—anything." This statement was heard recently.

The aim of this writer certainly is not to tell any physician how to handle his individual patients. Still, it is felt that a little frank discussion would have materially reduced the fourteen complaints listed above

—would have stopped them before they began. The purpose of this article is merely to try to get you to think about the matter where you and your patients are concerned. Perhaps you are batting a thousand in this respect, but it seems that the figures from Kings County may point out an area which could bear study by each physician.

Cancer of the Lung—Whereas there is some lack of unanimity of opinion concerning the cause for the unprecedented increase in the incidence of cancer of the lung, we are convinced from our observation that it is due to the carcinogenic effect of cigarette smoke. This assumption is based upon a number of facts. There is a distinct parallelism between the consumption of cigarettes in the United States and other countries of the world and the increase in incidence of cancer of the lung allowing for sufficient delay for the carcinogen to exert its effect. It has also been shown, without any question or doubt, that the smoke from cigarettes contains a cancer producing agent. One of the most conclusive evidences of this is research done by Graham and Wynder. In this particular investigation they obtained the smoke from the cigarette in as nearly the same manner as a human being when he smokes. A robot machine smoking 24 cigarettes at a time so operates that every sixty seconds a drag of two seconds on the cigarette is maintained. The smoke obtained from the cigarettes is cooled and the tarred residue obtained in this way is applied to the skin surfaces of animals three times a week. At the end of eight months one benign tumor developed at the site of the application. At the end of a year one cancer developed, and at the end of two years 44 per cent of the animals developed a cancer at the site of the application of the tarred residue which was identical with that seen in human beings. This malignant tumor metastasized, killed the animal, and was also transplantable. A criticism has been raised that one cannot compare animal cancer with human cancer. No attempt is being made to do so. However, it cannot be denied that cancer of the lung is increasing more rapidly and out of proportion to every other cancer and that there is a distinct parallelism between the consumption of cigarettes and the increased incidence of cancer of the lung. It has also been proved that there is a cancer-producing agent in the smoke obtained from cigarettes. It is, therefore, logical to assume that the unprecedented increase in the incidence of cancer of the lung is due to cigarette smoking.—Ochsner et al., *J. Louisiana State M. Soc.*, July '54.

NEXT MEETING
OF THE ASSOCIATION
MONTGOMERY
APRIL 21, 22, 23, 1955

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

TUBERCULIN TESTS

THE VOLLMER PATCH TEST: *Method of Application:*

A square of filter paper saturated with Old Tuberculin (O. T.) is applied to the skin supported by gauze and a strip of adhesive tape. Usually a surface is selected in the region of the upper sternum or between the scapulae. The skin surface should be cleansed and defatted with acetone. The filter paper should remain in contact for 48 hours, and the test read after *an additional* 48 hours. The subject (or parent) must be specifically instructed to remove the patch 48 hours after it is applied—warned not to permit it to remain until the test is normally due to be read. (96 hours of continuous contact has been known to cause unnecessarily severe inflammatory reactions.) The subject (or parent) should be instructed that should the area become irritated to a point of real annoyance before the expiration of the first 48 hours he should seek his doctor's advice with respect to earlier removal, or if a physician can not be contacted, to remove it himself, when in doubt.

Interpretation: A positive reaction shows redness, infiltration, closely set elevations and depressions upon the skin area to which the square containing tuberculin had been applied. There will seldom be vesiculation provided the patch is removed 48 hours following application.

Advantages: More easily applied (without use of needle); singularly well adapted therefore for children and for the testing of single individuals in office practice.

Properly applied and with good cooperation the test can be only slightly if at all less accurate than the Mantoux (intradermal test of 1:10,000 O. T.). . . They (the patches) should be kept in a cool place until used but

need not be refrigerated; expiration date on the patch test should be noted—this can consist of a maximum of 18 months.

Disadvantages: The amount of tuberculin coming in contact with the skin is not dependably uniform. The test is subject to the cooperation of the person being examined. If the patch is removed too early, becomes loosened or wet, the reading will be inaccurate.

There is only the one strength test; if negative, higher concentrations of tuberculin must then be introduced intracutaneously, when the tuberculin test is employed for differential diagnostic study.

THE MANTOUX TEST: *Method of Administration.*

The Mantoux test is administered intracutaneously using either O. T. or P. P. D. A "tuberculin syringe" should be used; this has a blue plunger and is graduated in tenths of a cubic centimeter. A short bevelled 26-gauge, $\frac{3}{8}$ to $\frac{1}{2}$ inch steel needle is standard for individual patients; a separate needle can well be used for each patient if the group is not too large. The syringe (and needle) should be initially dry (to prevent dilution of tuberculin, particularly when only 0.1 cc. is drawn into the syringe; the drawing of multiple doses of tuberculin into one syringe for multiple injections without refilling is generally advised against).

Needles and syringes, and ideally the sterilizing equipment, used for tuberculin testing should not be used for or in connection with other types of injections. Minute amounts of tuberculin which remain in the needles and syringes even after repeated sterilization may render other types of tests invalid.

The flexor surface of the mid-upper forearm is cleansed with acetone or alcohol. When the skin is dry, it should be rendered firmly taut; then inject exactly 0.1 cc. of whichever type and strength tuberculin is being employed into the upper layer. Care must be taken not to penetrate under the skin. When the injection is really *intracutaneous*, it produces a small raised bleb or wheal, which moves with the skin; other-

wise the material has been injected *under* the skin and the test will be unsatisfactory. Inject exactly one-tenth cubic centimeter; do not guess at the amount from the size of the wheal produced by the injection. Needless to say, do not give a second test immediately following a full dose that has been administered too deeply; the patient's reaction to the latter should be observed before a second attempt is made (48 or more hours later) to inject the tuberculin *intra-cutaneously*.

Interpretation: Customarily, a reading is recommended to be made after 48 or 72 hours. One naturally questions whether there can be two such widely divergent optimal times to read a tuberculin test. There can be, and is, a difference of opinion as to what is the optimal period.

The Virginia State Health Department, generally, uses the 48 hour period. After 48 hours positive tests tend to fade, especially those of 3 plus and under; accordingly a 1 plus test may be completely missed when a later reading is made.

If for any reason the individual cannot be seen at the end of 48 hours, he should, if possible, be contacted within 96 hours of the time of injection, for the reaction, though declining, may be visible for several days past the optimal time for reading. A negative test under these circumstances would call for a repeat test, especially if the individual himself had noted some reaction at 48 hours.

The forearm should be in good light and flexed a little at the elbow. (If held fully extended, the muscles may be taut enough to obliterate evidence of a positive test.)

The positive reactor has an induration edema of at least 5 mm. measured in its widest diameter. The presence of redness or erythema is not significant unless associated with edema. When the induration (edema) is absent, the reading is negative; when there is a trace of induration, less than 5 mm. in diameter, the reading is negative or at the most "doubtful."

In evaluating a reaction it is well to look across the arm rather than down on it. Pass a finger over the tested area. Induration caused by the edema can sometimes be felt when it does not produce an elevation that can be seen.

Positive reactions are recorded (arbitrarily) as follows:

one plus = 5-10 mm. induration
two plus = 10-20 mm. induration
three plus = Exceeding 20 mm. induration
four plus = Extensive edema with central necrosis

(Very rarely, instead of or in addition to edema, vesiculation may occur.)

When test is negative or "doubtful," re-testing with the same or higher concentration can be done immediately, or after any convenient interval.

Comparison Table of Strengths:

O. T.	P. P. D.
1:100 (100 times stronger than routine initial dose)	0.005—2nd strength 250 times stronger than 1st strength
1:1,000 (10 times stronger than routine initial dose)	0.0002—intermediate strength (10 times stronger than 1st strength)
1:10,000 (routine initial dose)	0.00002—1st strength
	(The patch test is roughly equivalent to 1:10,000 O. T.)

Initial Dosage: Ideally, the fewer tests required to establish the suspect's tuberculin status the better. But one is obligated to take all reasonable precaution against unduly severe response, not only because of the inconvenience of a 4 plus reaction locally (skin) but to protect against a potentially harmful focal reaction which also may occur in the lung (or other organs) where the patient is highly allergic.

It stands to reason that the higher the initial dose the more often one will observe a 4 plus reaction.

However, from a practical standpoint, neither the 1:10,000 nor the 1:1,000 O. T. strengths produce 4 plus reactions often enough to serve as a deterrent to their use as the initial test strength, where no known contraindications exist. Where an x-ray has preceded the tuberculin testing, as happens almost invariably in adults (suspects and close contacts), the initial dose can be reduced to 1:100,000 if the pulmonary lesion appears to be a little more than moderately acute.

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DEPARTMENT OF HEALTH

In contrast, in children (suspects and close contacts), due in part to technical difficulties in obtaining a satisfactory film, x-rays are usually restricted to those having a positive tuberculin reaction. Accordingly, except for the comparatively rare instances where the suspect child's lung can conveniently be screened fluoroscopically prior to tuberculin test, the initial test had best not be stronger than 1:10,000, or preferably might consist of a patch test where good cooperation can be anticipated; as noted above, the patch can be removed early if an excessive reaction occurs.

Particularly should the patch test (when removed early) or a 1:100,000 O. T. Mantoux be employed in children having swollen lymph glands, ulcerations or discharging sinuses or other extra-pulmonary forms of disease.

Contraindications (General): Tuberculin testing of any strength or type should not be attempted:

1. In acute illness.
2. In diseases of the skin.
3. Concurrently with smallpox vaccination.
4. During the early anergic phase of primary infection. Because 6-8 weeks are ordinarily required for a tuberculin test to become positive following infection, the State Health Department recommends that a child who has been in close contact with an active case of pulmonary tuberculosis should be tuberculin tested a second time 2-3 months following break in contact, if the first tuberculin test taken during the potentially anergic stage has been negative.
5. Known positive tuberculin tests have been observed to revert to negative in a small percentage of persons who have never had, or who no longer have, clinically active tuberculosis.
6. A negative tuberculin test, including higher concentrations, is reported with extreme rarity upon persons with clinical tuberculosis even with a positive sputum, and

where the disease is not acute. This seeming paradox should not be permitted to undermine one's confidence in the tuberculin test for use in the many *many* instances where its application is of tremendous, not to say crucial, importance; rather had this exception better be cited as merely one more example of an age-old adage to the effect that the words "always" and "never" have no place in a physician's vocabulary with respect to *any* disease!

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

May 1954

Examinations for diphtheria bacilli and Vincent's	105
Agglutination tests	931
Typhoid cultures (blood, feces, urine and other)	630
Brucella cultures	13
Examinations for malaria	149
Examinations for intestinal parasites	3,600
Serologic tests for syphilis (blood and spinal fluid)	22,697
Darkfield examinations	2
Examinations for gonococci	1,498
Examinations for tubercle bacilli	3,433
Examinations for meningococci	0
Examinations for Negri bodies	124
Water examinations	1,700
Milk and dairy products examinations	5,363
Miscellaneous	2,166
Total	42,411

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

	April	May	E. E.* May
Typhoid and paratyphoid fever	6	10	6
Undulant fever	2	4	2
Meningitis	12	21	11
Scarlet fever	33	41	28
Whooping cough	45	74	97
Diphtheria	5	3	10
Tetanus	1	2	4
Tuberculosis	201	275	263
Tularemia	0	2	1
Amebic dysentery	0	4	2
Malaria	1	1	7
Influenza	294	130	232
Smallpox	0	0	0
Measles	1883	1717	900
Poliomyelitis	16	32	5
Encephalitis	2	1	2
Chickenpox	360	239	221
Typhus fever	0	1	17
Mumps	156	270	168
Cancer	381	532	365
Pellagra	5	3	2
Pneumonia	236	275	182
Syphilis	209	179	910
Chancroid	7	8	12
Gonorrhea	502	508	416
Rabies-Human cases	0	0	0
Positive animal heads	42	30	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF SANITATION

Arthur N. Beck, M. S. in S. E., Director
TREATMENT OF WELL AND SPRING
WATERS

Contributed by

C. W. White, B. S., M. S.
San. and Pub. Health Engineer

The methods and procedures for treatment of waters for domestic purposes will depend upon the chemical and bacteriologic analysis of the water. The water from wells and springs may require various treatments depending upon the analysis. The following methods of treatment are discussed.

A. DISINFECTION

Ground water is found in abundance, especially in South Alabama, and may not require any treatment. It is the policy of the State Health Department to require disinfection of water from deep wells only if the reports of the bacteriologic analysis indicate the need. Water from shallow sources, wells and springs are required to be disinfected continuously if they are to be used for public supplies.

The following procedure for disinfecting the well should be followed before samples are collected for bacteriologic examination.

Procedure for Disinfecting Wells

1. Pump the well to waste until the water coming from the well is clear. Then stop pumping.

2. Add 2 to 5 pounds of hypochlorite (70% available chlorine) to the well—the amount depending on the size or the capacity of the well. Wells with a capacity of less than 100 g.p.m., add 2 pounds, wells over 400 g.p.m., add 5 pounds; add proportional amounts in wells from 100 to 400 g.p.m. capacities. The hypochlorite should be added to 5 or 10 gallons of water and the solution added to the well.

3. Start the well pump and bring the well water to the ground level then stop the pump. Repeat several times in order to mix the hypochlorite solution in the well.

4. Allow hypochlorite to remain in the well at least 6 hours, preferably 12 hours.

5. Pump the strong chlorinated water to the distribution system and allow it to remain for 12 hours.

6. Pump the water to waste until the chlorine odor is expelled.

7. Collect samples for bacteriologic analysis.

Should the samples continue to be unsatisfactory after repeating the above procedure several times, continuous chlorination should be required.

The water from shallow wells, deep wells that will not yield water of satisfactory bacteriologic quality, deep well waters that require additional treatment by double pumping or a broken system, and all springs should be required to receive continuous chlorination before delivery to the distribution system.

The simplest method of continuous chlorination is by the use of a motor driven diaphragm pump called a hypochlorinator which can be adjusted to feed the proper amount of chlorine solution. There are a number of machines that use this method of feeding the disinfectant. They can be electrically controlled so that they start or stop with the well or service pump. By this method a constant dosage can be maintained.

In addition to the adjustment of the rate of feed, the strength of the solution may be varied, thereby giving two methods of increasing or decreasing the amount of solution fed. The proper dosage depends on the chlorine residual test. The solution to be fed by the machine is prepared by adding a certain amount of dry chlorine compound called calcium hypochlorite (H. T. H., Perchloron, Pitchor) or a chlorine liquid called sodium hypochlorite (laundry bleach, chlorine bleach) to the water in the crock from which the machine takes suction. It has been found that the sodium hypochlorite gives better service in these machines as it contains no residue which tends to clog the machine valves and the tubing used for connections. When powdered hypochlorite is used, two crocks should be employed. The powder should be dissolved in one crock and siphoned into the other from which the machine takes suction. This will prevent sediment in the crock from clogging the machine.

Chlorinators, machines which use liquid chlorine in cylinders, are too expensive for private or semi-public supplies, so will not be discussed in this paper.

B. AERATION

Aeration of water has a number of useful functions. The most important is the reduc-

tion of carbon dioxide (CO_2), especially when the water is high in this material. It is also important in the removal of iron and manganese, in which the oxygen from the air is made available to precipitate these metals. Other functions are in the removal or reduction of hydrogen sulfide and odors caused by decomposed organic matter.

The aeration methods used depend upon the materials to be removed, the efficiency desired, and local conditions, such as head available. The various methods will be discussed briefly.

1. Forced draft aerator is comprised of an outside shell which houses a distributing tray above a series of horizontal wood slat trays; and connected near the bottom of one side is a motor driven blower, with a baffle to diffuse the air flow. The shell is located just above a drip pan to collect the aerated water.

The water to be treated is discharged above the distributing tray near its center. As the water drips down through the shell striking the slat trays, air is blown up through the shell. This type of aerator is very efficient if it is properly designed and sufficient air is blown through the shell.

2. Coke tray aerator comprises a series of coke-filled trays, one above the other, with a distributing pan above the first tray and a collecting pan under the bottom tray. There are at least three coke trays and their surface area is usually not less than 1 square foot per each 10 g.p.m. of water to be treated. The trays are about 6 inches deep and filled with egg-size coke.

The water is discharged above and near the center of the distributing tray which has a large number of small orifices or holes in its bottom which distribute the water to the coke trays below. Small streams drop through the air from tray to tray and a great surface area is exposed as it percolates through each of the porous coke beds. The water is collected in the bottom pan and given further treatment if desired.

3. Spray nozzles, usually installed in multiples over a concrete collecting area which drains the water to a central discharge pipe. The nozzles break up the water into a fine spray which exposes the water to the air.

The water to be sprayed usually requires a pressure of 10 to 20 pounds per square inch, which is greater than is required for the other type of aerators. The height of the spray should be at least 7 feet, which

usually requires a large collecting surface. It is necessary to design the nozzles and the collecting basin properly to meet the conditions available.

4. Cascades usually consist of a flight of three or more concrete steps over which the water tumbles in a thin sheet. This type of aerator is not usually very efficient. However, there have been variations in design which make it more effective. A low head or pressure is usually required for this type of aerator which gives it an advantage when sufficient head is not available.

5. Air diffusion is accomplished by blowing compressed air through porous plates which are placed in the bottom of a trough through which the water to be treated is passed.

This method requires an air compressor and storage tank, thus increasing the cost of operation. It is usually used when sufficient head for the other types is not available or it may be used in conjunction with mixing other chemicals.

C. CORRECTIVE TREATMENT

This method of treatment is the addition of an alkali (lime or soda ash) to react with the carbon dioxide (CO_2) in the water or by the addition of sodium hexametaphosphate, with trade names such as Calgon, Sodium Polyphos and Micromet. When the water is free of iron and manganese, but is high in CO_2 which makes the water corrosive, it is desirable and is recommended that the water receive corrective treatment in order to prevent "red-water" troubles. With special feeders an alkali may be added without repumping. Soda ash will dissolve in water and the solution may be fed by a hypochlorinator, provided the quantity needed is not too much. A lime slurry may be fed by a special booster pump on the feeder. The addition of the lime will not cause a slick feeling water as will soda ash if large quantities are required. The addition of lime, however, increases the hardness in the water. The sodium hexametaphosphate may be dissolved and fed by either the hypochlorinator or by the special booster pump, or it may be fed in combination with lime or soda ash. If the water is very acid or has a very low pH value, this method has not proven satisfactory, so, if this condition exists, it is suggested that a combination of an alkali and sodium hexametaphosphate be considered and the pH value be adjusted to approximately 7.0.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR FEBRUARY 1954

PROVISIONAL BIRTH AND DEATH STATISTICS FOR MARCH 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered February 1954			Rates (Annual Basis)			Live Births, Stillbirths and Deaths by Cause	Number Registered March 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952		Total	White	Colored	1954	1953	1952
Total live births	6009	3581	2428	24.4	25.0	26.6	Live births	6163	3802	2361	22.6	25.3	25.3
Total stillbirths	135	51	84	22.0	22.0	24.8	Stillbirths	141	59	82	22.4	23.6	25.2
Deaths, stillbirths excluded	2036	1196	840	8.3	10.5	8.8	Deaths, stillbirths excluded	2307	1365	942	8.5	8.5	9.4
Infant deaths—							Infant deaths—						
under one year	196	100	96	32.6	38.2	38.6	under one year	229	116	113	37.2	36.0	39.9
under one month	124	64	60	20.6	24.4	23.6	under one month	148	84	64	24.0	24.6	25.5
Cause of Death							Cause of Death						
Tuberculosis, 001-019	31	14	17	12.6	18.9	20.5	Tuberculosis, 001-019	39	15	24	14.3	16.3	17.7
Syphilis, 020-029	7	2	5	2.8	1.6	4.0	Syphilis, 020-029	7	2	5	2.6	2.6	1.1
Dysentery, 045-048	3	1	2	1.2	1.2	0.4	Typhoid and paratyphoid, 040, 041						0.4
Diphtheria, 055	1	1	—	0.4	0.8	0.4	Dysentery, 045-048	1	1	—	0.4	1.1	0.4
Whooping cough, 056							Diphtheria, 055	1	1	—	0.4	0.4	0.4
Meningococcal infections, 057	1	—	1	0.4	3.7	2.4	Whooping cough, 056	1	—	1	0.4	—	1.5
Poliomyelitis, 080, 081	1	1	—	0.4	0.4	0.8	Meningococcal infections, 057	9	4	5	3.3	1.9	1.5
Encephalitis, 082, 083							Encephalitis, 082, 083						1.1
Measles, 085	1	—	1	0.4	—	1.2	Measles, 085	1	—	1	0.4	—	3.4
Malignant neoplasms, 140-205	233	171	62	94.8	96.2	94.5	Malignant neoplasms, 140-205	269	198	71	98.8	91.7	105.8
Diabetes mellitus, 260	20	9	11	8.1	15.6	14.9	Diabetes mellitus, 260	29	18	11	10.7	9.3	8.7
Pellagra, 281	3	2	1	1.2	0.8	1.2	Pellagra, 281	3	3	—	1.1	1.5	0.8
Vascular lesions of central nervous system, 330-334	284	146	138	115.5	115.5	97.4	Vascular lesions of central nervous system, 330-334	336	188	148	123.4	112.9	117.8
Other diseases of nervous system and organs of special sense, 340-398	23	14	9	9.4	10.3	11.3	Other diseases of nervous system and organs of special sense, 340-398	27	14	13	9.9	8.9	12.0
Rheumatic fever, 400-402	6	5	1	2.4	0.8	2.0	Rheumatic fever, 400-402	5	1	4	1.8	2.6	1.5
Diseases of the heart, 410-434	506	349	157	205.8	245.1		Diseases of the heart, 410-434	551	376	175	202.4	183.4	
Hypertension with heart disease, 440-443	128	66	62	52.1	88.4	266.7	Hypertension with heart disease, 440-443	160	77	83	58.8	68.7	281.5
Diseases of the arteries, 450-456	33	21	12	13.4	16.4	17.7	Diseases of the arteries, 450-456	49	38	11	18.0	17.4	21.8
Other diseases of circulatory system, 444-447, 460-468	45	26	19	18.3	16.0	9.2	Other diseases of circulatory system, 444-447, 460-468	35	16	19	12.9	13.4	13.5
Influenza, 480-483	26	16	10	10.6	61.3	19.3	Influenza, 480-483	21	12	9	7.7	27.5	26.3
Pneumonia, 490-493	78	31	47	31.7	67.0	35.8	Pneumonia, 490-493	93	42	51	34.2	35.3	50.1
Bronchitis, 500-502	4	2	2	1.6	2.5	1.2	Bronchitis, 500-502	5	3	2	1.8	2.2	0.8
Appendicitis, 550-553	1	—	1	0.4	0.8	0.8	Appendicitis, 550-553	5	2	3	1.8	1.9	1.1
Intestinal obstruction and hernia, 560, 561, 570	7	5	2	2.8	2.5	6.0	Intestinal obstruction and hernia, 560, 561, 570	10	3	7	3.7	3.7	3.0
Gastro-enteritis and colitis (under 2)	12	8	4	4.9	0.4	5.6	Gastro-enteritis and colitis (under 2)	5	3	2	1.8	1.1	3.0
Cirrhosis of liver, 581	10	7	3	4.1	2.5	6.4	Cirrhosis of liver, 581	16	9	7	5.9	4.8	6.4
Diseases of pregnancy and childbirth, 640-689	9	4	5	14.6	9.6	14.8	Diseases of pregnancy and childbirth, 640-689	12	6	6	19.0	22.9	11.6
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	1	—	1	1.6	1.6	—	Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 682, 684	2	1	1	3.2	2.9	1.4
Congenital malformations, 750-759	24	19	5	4.0	4.3	3.0	Congenital malformations, 750-759	28	18	10	4.5	4.5	4.5
Accidental deaths, total, 800-962	168	97	71	68.3	60.0	62.8	Accidental deaths, total, 800-962	156	95	61	57.3	46.8	58.7
Motor vehicle accidents, 810-835, 960	80	59	21	32.5	23.4	25.3	Motor vehicle accidents, 810-835, 960	59	34	25	21.7	19.7	21.1
All other defined causes	280	150	130	113.9	145.6	140.4	All other defined causes	319	191	128	117.2	143.0	143.4
III-defined and unknown causes, 780-793, 795	91	29	62	37.0	58.0	43.4	III-defined and unknown causes, 780-793, 795	114	29	85	41.9	40.5	46.3

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

AMERICAN MEDICAL ASSOCIATION NEWS

TONSILLECTOMY AFFECTS SEVERITY OF POLIO

A polio victim who has had his tonsils removed is about four times more likely to have the serious bulbar type of polio than a patient who still has tonsils.

This finding, reported in the July 24 Journal of the American Medical Association, was made after a study of more than 2,000 victims of a 1946 polio outbreak in Minnesota.

Gaylord W. Anderson, M. D., and Jeanne L. Rondeau, A. B., of the University of Minnesota School of Public Health, said their study did not show that persons without tonsils are more likely to get polio. However, if "recognizable" polio does occur, the patient without tonsils is in more danger of having the bulbar type. Aside from the first month after operation, when bulbar incidence is lower than in later months, it makes no difference how long before the polio attack the tonsillectomy was performed, they said.

Bulbar involvement occurs in over a third of the patients whose tonsils are not present at the time of the polio attack. Less than a tenth of the patients who have not had tonsillectomy show the bulbar type, which affects the grey matter in part of the brain, resulting in impairment of breathing and often requiring use of the iron lung.

There is much evidence that polio virus is so widespread that almost everyone is exposed to it, the Journal article said. But only a small number respond badly to the virus, with resultant paralysis.

The proportion of persons who respond with the bulbar type supposedly has increased in recent years and is greater in the older age groups. The article said the probable reason is that higher polio incidence has shifted into the age more likely already to have had tonsillectomies, and that the frequency of tonsillectomies has increased.

The lack of cases of bulbar type polio in certain areas may be due to the concentration of polio in ages before tonsil removal, they said. Certain countries, such as Egypt, Chile, and Japan, have almost no bulbar polio, probably because of the almost com-

plete absence of tonsillectomies at ages when polio is likely to strike.

The Minnesota study, aided by a grant from the National Foundation for Infantile Paralysis, was based on 2,669 case histories. It showed that 71.4 per cent of the 535 persons with bulbar polio had undergone tonsillectomies as contrasted with 28.2 per cent of the 936 with severe spinal polio; 32.6 per cent of the 908 with mild spinal, and 34.8 per cent of the 290 nonparalytic cases.

"Even more significant than the absolute difference between the bulbar and other groups is the fact that this difference holds at all ages and in both sexes," they said.

If "recognizable" polio developed in a child who still had tonsils, the chances were one out of 12 that the infection would be bulbar, but, if the child had at some time had his tonsils removed, the chances were more than one in three, they said.

"The magnitude of this effect is quite apparent" when the actual number of bulbar cases is compared with the number that might have been expected if none of the patients had had tonsillectomies, they said. Among the 694 patients who had not had tonsillectomies before the age of 4, only 59 bulbar cases developed, or 8.5 per cent.

"If the 81 patients who had had tonsillectomy, in this age group, had had the same rate of bulbar involvement, there would have been only 6.9 bulbar cases," they said. "Actually there were 21, or an excess of 14.1 cases attributable to the higher bulbar rate in those who had had tonsillectomy."

"It is found that there were 273 more bulbar cases in the entire group than might have been expected if all had had the same rate of bulbar involvement as did the group of patients who had not had tonsillectomy."

They said it is probable that tonsillectomy removes some "natural barrier" which would have prevented the spread of polio virus from the throat to the nerve centers. However, their study did not answer the question of how bulbar polio develops, or whether a person without tonsils is more likely to get any kind of polio.

"Evidence is available to indicate that

several factors, such as recent tonsillectomy, pregnancy, excessive fatigue, and recent injections" of certain kinds, may "tip the scales" toward susceptibility, they said.

"No inference is to be drawn as to the desirability of tonsil removal," they said, but only "a suggestion of the importance of suitable indication for removal before operation is undertaken."

"PARROT FEVER" CAN COME FROM CHICKENS

"Parrot fever," commonly believed to be a rare disease caught only from parrots and parakeets, probably is not so rare and even can come from chickens, turkeys, and ducks.

Thirty-seven cases of psittacosis probably caught from chickens were found during six months in the rural area around Warren, in northwestern Illinois. The cases were reported in the July 24 Journal of the American Medical Association.

Warren is the center of a five-mile area containing three smaller communities. Nearly all the farmers are livestock raisers and most of them keep a flock of chickens.

The first case of psittacosis appeared in 1951—in a mechanic who raised pheasants as a hobby. Five more cases were found in 1952 and 37 more in the first six months of 1953. Of this last group, 27 patients lived on farms. Nine lived in Warren or surrounding towns. One lived 40 miles away but was visiting in Warren when her case was discovered through a premarital blood test.

Investigation of possible sources of the disease showed chickens to be "the only potential reservoir commonly associated with these cases." Not all resulted from direct contact with chickens. One patient had cleaned a chicken yard two weeks before his illness; another had an apparently well parakeet; another had an apparently well canary.

Besides a severe cough—the chief complaint—the patients had chest pain, fever, headaches, muscular aches and pains, backaches, and weakness or fatigue. None died.

"It would certainly appear from our experience that in any case of virus pneumonia or chronic cough occurring in persons in rural areas, the possibility of psittacosis infection should be considered," the writers said.

The report was made by Drs. C. George Ward, Warren, Ill., Albert L. Hildinger, Galena, Ill., Jackson P. Birge, Rock Island, Ill., and public health official Richard A. Morrissey, Chicago.

ADULTS CAN LICK RHEUMATIC FEVER

Most persons can resume normal lives if the first attack of rheumatic fever comes in adulthood rather than childhood, a study of 98 World War II veterans shows.

Three California physicians said in the July 24 Journal of the American Medical Association that adult rheumatic fever patients should receive encouragement toward social adjustment in addition to treatment for physical recovery.

"It would appear that, in addition to extensive rehabilitation, attempts should be made at the time of illness to encourage optimism in patients and avoid overemphasis of any possible or expected disability," they said.

Among the 98 studied by the three California doctors, most made "adequate adjustments in regard to education, jobs, marriage and family life, and recreational activities." The worst adjustments were made by those who were pessimistic about the illness.

Only 18.4 per cent of the veterans who had an initial attack of rheumatic fever during military service showed any residual heart disease, the physicians said. The vast majority of them were able to resume normal lives.

"Ninety-five per cent were gainfully employed or in school at the time of the follow-up study," they said. "No instance of serious disability . . . was observed."

Compared to a 10 to 20 per cent fatality rate among children in the first five years after rheumatic fever, the rate was only 1.7 per cent among veterans, according to the National Research Council.

The study was made by Drs. Ephraim P. Engleman, Leo E. Hollister, and Felix O. Kolb, San Francisco.

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THE IMMEDIATE MANAGEMENT OF PERIPHERAL ARTERIAL INJURIES

FREDERICK W. SMITH, M. D.

Huntsville, Alabama

The choice of arterial injuries as a subject is an outgrowth of my interest in them for several years, in addition to the fact that, since they are relatively uncommon in civilian practice, many of us are not familiar with their management. Yet, when we see one, it is a matter for prompt attention, which must be correct attention; for these wounds, when improperly treated, do not lend themselves to correction except within a very few hours.

Reliable methods for arterial anastomosis, both end-to-end and lateral in type, were being developed at the close of the last century and the beginning of the present one.¹ That arterial reparative surgery should have such a relatively long history without more widespread interest is explained by the rarity of these lesions in civilian injury, the impracticality of arterial surgery in World Wars I and II, due to excessive time lag between injury and surgery, and, finally, the poor results obtained in vascular repair when the operating surgeon was inexperienced in the technique of vascular surgery.

The great strides which have been made in this field since the close of World War II have been a result of several factors. One was a realization of the gravity of major artery injury in the management of wounds

of the extremities, as was so beautifully studied and presented by DeBakey and Simeone² in their report on arterial injuries of American troops in World War II. Another has been the sudden interest in arterial surgery brought about by the development of techniques for the treatment of congenital heart defects, cirrhotic esophageal varices, and other conditions treated by arterial or venous shunts. In the preparation of themselves for this type of surgery, more and more surgeons have become versed in, and familiar with, the techniques useful in vascular surgery. Therefore, although the year 1900 found arterial anastomosis being developed, and the year 1903 saw the first successful fresh arterial autograft and homograft,¹ active interest in vascular surgery lay dormant until stimulated by the factors mentioned above.

In order to appreciate the advantages of proper management of arterial injuries at the time of their occurrence, let us briefly review the consequences of this type of injury, assuming that death from exsanguination has been avoided. Simple laceration of an artery may result in a traumatic aneurysm with later thrombosis or rupture, or an arteriovenous fistula with later decompensation and death from cardiac overload. Proper recognition and treatment of the laceration at the time of injury will prevent these sequelae. Complete severance or thrombosis of an artery may result in distal ischemia, with loss of an extremity or severe impairment of its use. That this oc-

Read before the Association in annual session, Mobile, April 15, 1954.

1. Schloss, G., and Schumacker, H. B., Jr.: Studies in Vascular Repairs: The Use of Free Vascular Transplants for Bridging Arterial Defects; An Historical Review with Particular Reference to Histological Observations, *Yale J. Biol. & Med.* 22: 273-290 (Jan.) 1950.

2. DeBakey, M. E., and Simeone, F. A.: Battle Injuries of the Arteries in World War II, *Ann. Surg.* 123: 534-579, 1946.

curs with alarming frequency has been shown statistically by DeBakey and Simeone² who reported 2,431 cases of arterial injury in American troops during World War II.

The findings in this report regarding amputations were as follows: Of all major amputations, 19.5% were done as a result of major artery injuries. The amputation rates following wounds of the various arteries were:

Subclavian artery.....	28.6%
Axillary artery.....	43.2%
Brachial, above profunda.....	55.7%
below profunda.....	25.8%
Radial and ulnar.....	39.3%
Common iliac.....	53.8%
External iliac.....	46.7%
Femoral, above profunda.....	81.8%
below profunda.....	54.8%
Popliteal.....	72.8%
Ant. and post. tibials.....	69.6%

In addition to those extremities which were amputated, others were rendered almost useless by chronic ischemia with contracture or claudication. These must also be considered in measuring the consequences of arterial injury.

These studies indicate that the collateral circulation described in anatomy texts is not sufficient to prevent ischemic changes in many instances. The instances in which it will be sufficient are impossible to predict clinically in most cases. Therefore, we should not be content simply to ligate severed or injured arteries and hope for the best, for this results in a very high percentage of loss of extremities, or the normal use of extremities. Rather, efforts should be made to preserve and restore the blood supply, which is best accomplished by the reestablishment of normal channels of flow.

There has been evidence in civilian practice that this is the method of choice and that extremities have been saved by its use for some time. However, these instances have been either single cases or small groups of cases which were too few in number for conclusions to be drawn from them. It remained for another war to prove this method superior to ligation by the more scrupulous care of arterial injuries, which was made possible by the establishment of the Mobile Army Surgical Hospital near the front lines, by helicopter evacuation of the wounded, and by having surgical teams available who were versed in the technique of vascular surgery. Two reports from the

Korean conflict reveal a rather startling difference between results in arterial injuries in World War II, with an amputation rate of 40.1% in one large series, and that in one nine month period of the Korean War of 17.9%.³ Jahnke^{4,5} reported seventy seven cases with surgical repair of thirty three major arteries with amputation being necessary in only three cases, or 9.1%. These reports indicate conclusively that arterial repair and reestablishment of circulation through normal channels are far superior to ligation, particularly with regard to major vessel injury.

Let us now turn to the discussion of arterial injuries as we see them in our daily practice. First, there are those patients who present themselves to us with arterial injuries, a result of gun shot wounds, stab wounds, lacerations, massive contusions, and fractures resulting in lacerations or thromboses of major arteries. Secondly, there are those patients who experience lacerations or ligations of arteries during surgery. The latter are most frequently seen during repair of an inguinal hernia or high saphenous vein ligation. Regardless of the cause of arterial injury, it must be kept in mind that, if the general condition of the patient permits, that is, if there is not some more pressing surgical problem, almost any arterial injury lends itself to surgical correction, if it is recognized sufficiently early.

Due to the fact that these arterial lesions may be corrected surgically in most instances with probable salvage of a limb in so doing, we should recognize arterial injury immediately, rather than having it brought to our attention by the onset of ischemic gangrene. That time is important is evidenced by the fact that one of the primary causes of the high amputation rate in World War II was the average time lag of fifteen hours between injury and definitive surgery.² On the other hand, Jahnke⁴ reported no amputations in the group treated within nine hours. Therefore, although it

3. Zberman, H. H.: Acute Arterial Injuries in the Korean War; A Statistical Study, Ann. Surg. 139: 1-8 (Jan.) 1954.

4. Jahnke, E. J., and Sealy, S. P.: Acute Vascular Injuries in the Korean War; An Analysis of 77 Consecutive Cases, Ann. Surg. 138: 158-177, (Aug.) 1953.

5. Jahnke, E. J.: The Surgery of Acute Vascular Injuries: A Report of 77 Cases, Mil. Surgeon 12: 249-251 (April) 1953.

is necessary to recognize the arterial injury as such, there is no reason for foolish haste in its management. Ample time presents for the setting up of an operating room, acquisition of surgical help if necessary, and restoration of the circulating blood volume of the patient once hemorrhage has been controlled.

The diagnosis of arterial injury is not always simple. One must constantly keep the possibility of vascular injury in mind when an injured patient is examined, otherwise a relatively easily recognized lesion may go unnoticed until irreversible changes have occurred. Those injuries completely interrupting the arterial flow are usually easily recognized by the signs of impaired circulation distal to the injury. This may be evidenced by lack of pulses, when they are readily palpable elsewhere, and by coldness of an extremity when the opposite one is warm. In the presence of surgical shock all extremities may be cold and pulseless. For this reason I have qualified the signs described above as being indicative only when like areas do not show them to be present. Other symptoms which may be of value are those of numbness, pallor, loss of function, and empty veins distal to the site of injury, and some authors⁶ have advocated the use of the oscilloscope.

In those instances in which there has been an incomplete division of the artery, and in which the artery still functions as a channel of flow, the diagnosis is more difficult and may depend on such factors as severe blood loss in a short time, location of a wound over the course of a major vessel, or a rapidly enlarging hematoma. These injuries tax the judgment of the surgeon, and in many instances the question may be resolved only by exploration of the wound. Whenever there is a question of arterial injury, exploration should be done only in the operating room with preparations made for immediate arterial repair, should it be found necessary.

Once a diagnosis of arterial injury has been made, the decision must be made as to whether simple ligation or arterial repair is the procedure of choice. Although no such definite figures were available on carotid injuries as on those of other peripheral arteries, the consensus is that injuries of the

common and internal carotid arteries should be repaired, while those of the external carotid may be safely ligated. Reference to the figures of Simeone and DeBakey² and those of Jahnke^{4, 5} indicates that, in general, major arteries should be repaired while minor arteries may be ligated. However, it must be borne in mind that in minor arterial injuries, when paired arteries, such as the radial and ulnar or the anterior and posterior tibials, are involved, the interruption of both members of the pair is followed by a high rate of amputation when ligated. This rate is 39% in the forearm and 70% in the leg. Therefore, when this situation arises, one of the pair should be repaired, preferably the larger of the two.

In treatment of arterial injuries the primary consideration is hemostasis for the preservation of life. The most popular method of hemostasis in these injuries is that of applying tourniquets to the extremity. Jahnke^{4, 5} condemns this practice because all of his cases requiring later amputation had had prolonged application of tourniquets. He suggests traction and pressure dressings instead, stating that none of his cases required tourniquets even after the blood volume had been restored. Freeman⁶ concurs with this viewpoint. In brief, tourniquets should probably not be applied, but rather the bleeding controlled by application of hemostatic forceps if the bleeding point is visible or a pressure dressing if it is not.

Once hemostasis has been secured and the blood loss replaced, let us turn to the general measures which should be observed in the management of an extremity with impaired arterial circulation. First, the position of the extremity should be either at heart level or slightly dependent, but never elevated, in order to enlist the aid of gravity in maintaining circulation. Second, the extremity should never have heat applied but should be allowed to seek room temperature in order to decrease the oxygen requirements of the tissues. Third, points of pressure, such as the heel, should be especially protected in the ischemic extremity due to the increased susceptibility to decubitus ulcers. Sympathetic blocks and, to a lesser degree, general vasodilators may be of benefit in maintaining or increasing collateral circulation but should be reserved for cases with doubtful outcome.

The operative management of arterial in-

6. Freeman, Norman E.: Acute Arterial Injuries, *J. A. M. A.* 139: 1125-1129, 1949.

Injuries should be undertaken in a properly manned operating room in which proper instruments are available for arterial repair. The anesthesia of choice is usually a general anesthetic unless the patient presents some contraindication. The artery in question is exposed by an incision offering easiest access to the vessel and ignoring the wound of injury unless it happens to lie in the course of the operative incision. In this event it may be extended as part of the incision. It is advisable to isolate and secure the artery proximally and distally before examining it at the site of injury in order to control hemorrhage. Once the site of injury has been exposed, if ligation is felt to be the procedure of choice, it is accomplished and the wound debrided and closed or dressed open for secondary closure as one's judgment dictates. If repair is to be carried out, the type depends upon the extent of injury to the artery. When there is simply a lateral wound of an artery, involving less than one third of the circumference, arteriorrhaphy or simple repair may be done with evertting mattress sutures. In those instances involving more than one-third of the vessel wall, the artery should be divided, and direct end-to-end suture anastomosis done. Jahnke⁴ limited simple repair to those injuries involving less than 10% of the circumference of the artery.

In the event of complete severance of the artery, debridement of the arterial ends is followed by end-to-end suture anastomosis. This debridement should be adequate to insure viable tissue on either side of the anastomosis, and may result in a considerable defect in the artery. Additional length may be gained by the routine stripping of the adventitia near the ends and it may be advisable to sacrifice any branches near the injury in order to obtain further stretch, even at the expense of collateral circulation. Thrombosis of an arterial segment is treated similarly with adequate debridement followed by repair, although in this instance a graft of some type is more frequently needed.

The choice of technique of suture will rest with the individual surgeon, but those techniques using evertting sutures of nonabsorbable material are accepted by most. Many use the Blalock technique with a continuous evertting suture interrupted at three points for all arterial anastomoses, and I feel that this is the most satisfactory for larger arte-

ries. However, in some instances in which the arterial caliber is quite small, I have found it technically easier to maintain a good lumen by triangulating the arterial ends and using interrupted evertting lateral mattress sutures. There is no more bleeding through the anastomotic line than is seen with the continuous suture technique and possibly there is less purse string effect. Regardless of the method of anastomosis, following its completion the artery is covered with viable tissue, either by primary suture of the wound or by a muscle flap if the wound is to be left open for secondary closure or skin graft.

In those instances with a large arterial defect, a graft of some type must be used to bridge the defect. Many types of grafts have been used with some success in experimental animals, including plastic tubes⁷ and finely woven cloth tubes.⁸ In addition, many methods of preservation of arterial homografts have been used, the one seemingly offering the best qualities for maintenance of a vessel bank being that of freeze-drying them. In other cases, fresh vein grafts have been widely used to bridge arterial defects and have proven quite satisfactory. The latter were used exclusively by Jahnke^{4, 5} in Korean casualties with satisfactory results. There is still some controversy as to whether the freeze-dried arterial homografts or the fresh vein autograft is superior. It is true that with arterial homografts a similar section of artery may be used with similar shape, size and branches as in the instance of a segment consisting of the common, internal, and external iliacs. Furthermore, there is probably less chance of aneurysmal dilatation with arterial homografts than with vein grafts. However, although freeze-dried arterial grafts may prove superior to vein grafts in the final analysis, the vein grafts are usually more readily available and will probably continue to be the most widely used graft in smaller centers which do not offer the advantages of vessel banks.

Whenever a graft must be used, the tech-

7. Donovan, T. J.: The Uses of Plastic Tubes in Reparative Surgery of Battle Injuries of Arteries With and Without Intra-Arterial Heparin Administration, Ann. Surg. 130: 1024-1043 (Dec.) 1949.

8. Voorhees, A. B., Jr., and Jaretzki, A., III: The Use of Tubes Constructed From Vinyon "N" Cloth in Bulging Arterial Defects, Ann. Surg. 135: 332-336 (March) 1952.

nique is similar to that of simple anastomosis except for the additional anastomosis which must be done. In the use of vein grafts, the graft must be reversed before insertion in the event a valve is included in the length of the graft. Following the insertion of a vein graft it is particularly important to overlay it with a muscle flap in an attempt to prevent excessive dilatation, whether the wound is closed primarily or left open.

In this discussion, I have purposely avoided mention of the anticoagulants, for I believe that the consequences of their use outweigh the benefits obtained. Regional heparinization has been advocated by some,⁹ but this author has found great difficulty in maintaining proper rate of flow or else a marked general effect on the clotting time. Jahnke¹ obtained good results without its use postoperatively. In the author's experience its use has recently been restricted to that of local irrigation during surgery.

CASE REPORTS

B.M.—J.H.H. No. 16974

Oct. 4-27, 1948

This 57 year old white male was admitted to the emergency room with a gunshot wound of his left arm in the upper middle third. After he had received 500 cc. of plasma, he was taken to the operating room where exploration of the wound revealed a severed brachial artery and vein. The vein was ligated and an end-to-end suture anastomosis of the artery was attempted without access to arterial clamps or arterial silk. Following the anastomosis, no pulsations were felt in the artery distally and after surgery the hand was still cold. It was felt that the anastomosis was a failure and during the next week this was proven by the onset of ischemic gangrene of the arm. The arm was allowed to demarcate in the absence of infection and after twelve days a low arm amputation was done with excellent healing of the stump. The patient was discharged on his 18th postoperative day.

M.U.—J.H.H. No. 50495

Dec. 5-15, 1949

This 18 year old colored female was admitted to the emergency room at 10:30 p. m. with a stab wound of her right thigh on the medial aspect and in the lower third. There was profuse bleeding and on examination the right lower leg was cold and pulseless. A pressure dressing was applied, and after supportive measures were undertaken and blood and plasma were administered, she was taken to the operating room where the femoral artery was exposed and found to be completely severed. The femoral vein was also lacerated and was ligated. The artery was isolated and an end-to-end suture anastomosis was done with 00000 arterial silk. The wound was debrided and closed primarily and, following

surgery, the temperature of the injured leg distal to the wound was warmer than preoperatively but still cooler than the left. No pulsations were felt. There was mild evidence of thrombophlebitis following surgery. Walking was started on the ninth postoperative day and the patient was discharged on the tenth postoperative day, still favoring her leg but without evidence of arterial insufficiency. Three years later, follow-up revealed good pulses in the leg without evidence of arterial insufficiency.

C.S.K.—J.H.H. No. A-52927 March 1-4, 1950

This 25 year old colored male was admitted to the emergency room at 9:30 p. m., thirty minutes after receiving a stab wound of the thigh. The wound was found to be on the antero-medial surface in the middle third. There had been profuse bleeding and the patient was in clinical shock on admission. He received 4500 cc. of whole blood after pressure dressings had been applied, and was taken to surgery at five a. m. on the following day. The wound was explored and the artery was found to be severed. The severance was completed and an end-to-end suture anastomosis was done with 00000 arterial silk. Following surgery, a good pulse was obtained in the dorsalis pedis artery. The patient remained in a precarious state, with blood pressure about 100/60, for 24 hours. Regional heparinization was attempted but when the clotting time was found to be over sixty minutes, it was discontinued. The blood pressure rose to 120/80 after about thirty hours but shortly dropped again to 80/60. The blood pressure continued to vary and, after three days of almost complete anuria, the patient died in circulatory collapse. Autopsy revealed the anastomosis to be completely patent and without any thromboses. A satisfactory explanation of his death was not obtained.

B.M.B.—J.H.H. No. A-49855 August 12-31, 1950

This 31 year old colored female was admitted to the emergency room at 9:30 a. m. shortly after receiving a stab wound of the right arm and left shoulder anteriorly. There was evidence of injury to the left musculocutaneous nerve for which she was admitted to the hospital. At four p. m., some six and one half hours after admission, a spreading hematoma of the left shoulder revealed a laceration of the axillary artery. The patient was taken to the operating room where exploration revealed laceration of the axillary artery. The artery was severed completely, debrided and an end-to-end suture anastomosis was done with 00000 arterial silk. Pulsations which had been absent before surgery were palpable after surgery. She ran a high fever for two days after which she became afebrile and was discharged on the ninth postoperative day with some residual nerve defect. Four weeks postoperatively, sensory loss had been regained and the patient refused further surgery at that time. She was lost to follow-up with this visit.

W.T.—J.H.H. No. A-56811 Sept. 1-14, 1950

This 31 year old colored male entered the hospital two hours after having received a stab wound of his left arm with profuse bleeding at the time of injury. This had gradually stopped. The wound was in the upper middle third with a large hematoma. The blood pressure at the time

9. DeBakey, M. E., and Amspacher, W. H.: Acute Arterial Injuries, *S. Clin. North America*, 1513-1532 (Oct.) 1949.

of admission was 95/70. The forearm was found to be cold and pulseless and the patient was taken to the operating room after supportive measures had been instituted. The brachial artery was exposed and found to be completely severed. Following debridement, an end-to-end suture anastomosis was done with interrupted sutures of 00000 arterial silk. The wound was then debrided and closed. Following surgery the hand was the same temperature as the opposite one, although no pulse was felt at this time. A complicating wound infection necessitated reopening the wound for drainage and this was allowed to heal by second intention. The temperature of the left hand remained the same as the right throughout the postoperative course although radial pulses were not palpable until two weeks postoperatively. The patient returned to work one month postoperatively with good function of the left hand and arm and without any signs of ischemic change.

L.J.—H.H. No. 65567

May 4-12, 1953

This 12 year old white male was admitted to the hospital shortly following an injury to his left arm, sustained when he fell through a plate glass door, resulting in lacerations of his left arm accompanied by very brisk bleeding. A tourniquet had been applied to his arm for control of bleeding. He was immediately taken to the operating room after one infusion of 500 cc. of whole blood. In the operating room exploration of the laceration was undertaken and a complete severance of the brachial artery was found, the artery having been first controlled above and below the point of injury. The distal portion of the artery had a good backflow but this did not approximate that of the proximal portion. An end-to-end suture anastomosis with evertting 00000 black silk was done. Following this, the median nerve, which was found to be severed, was repaired. The wound was closed primarily. Within four hours of surgery, a pulse was felt in the left arm, equal to that in the right and this continued throughout the postoperative course. Follow-up over the next eight months revealed the pulse to remain good and, by Tinell's sign, the median nerve to have returned completely.

T.R.—H.H. No. 68434

Nov. 11-14, 1953

This is a 47 year old white male who was admitted to the hospital with a penetrating wound in the upper third of the left thigh which was incurred when the patient fired a shotgun with a heavy charge, causing the gun to explode, a portion of the mechanism entering his left thigh. He bled quite freely and an arterial laceration was suspected although there were excellent pulses present in the left foot. Consequently, he was taken to the operating room and the wound explored. At the time of exploration, a laceration of the femoral artery, approximately one-fifth of its circumference, was found and sutured with interrupted mattress evertting sutures of 00000 black silk. Following surgery, he continued to have excellent circulation in his foot and pulses which were palpable before surgery were still palpable following surgery. At no time following surgery was circulation of the foot in any doubt. He was discharged home on the third postoperative day to continue convalescence.

DISCUSSION

In the author's seven personal cases reported here, there were injuries to axillary, brachial and femoral arteries. The first case was a complete failure following attempted repair of a brachial artery without arterial clamps or suture material. There were five cases of successful repair, although one patient died three days later, apparently with lower nephron nephrosis. That these were successful was evidenced by the presence of pulses following surgery when there had been none before. In two cases, there was only questionable success, because there were no palpable pulses postoperatively, although the extremities which had been colder than the opposite ones warmed to approximately the same temperature after surgery, and no claudication was experienced later. The amputation rate here is one of seven cases, or 14%.

It is the intention of this presentation primarily to demonstrate the increasing success in arterial repairs with increasing experience in vascular repair, and to point out that interruption of a major artery may be treated by other methods than that of ligation and hope.

CONCLUSIONS

1. In the event of major artery injury, the treatment of choice is surgical repair.
2. Wounds in which there is a possibility of arterial injury should be surgically explored with preparation for arterial repair should it be found necessary.
3. Successful treatment of arterial injury depends upon early recognition, proper evaluation, and familiarity with the technique of vascular surgery.

Erysipeloid Cellulitis—We believe the only treatment indicated for the patient seen in an acute attack is bed rest, elevation of the affected limb, warm saline or boric acid wet packs applied intermittently during the day to the area involved, a balanced diet and maintenance of fluid balance. If there should be active skin lesions on the feet, immersing them in a 0.25 per cent chlorazine solution for 20 minutes, three times a day, being sure to dry the feet well after each treatment, will eradicate the infection.

The ideal treatment is prevention. The patient should be impressed with the importance of preventing a recurrence of the fungus infection. If this is accomplished, there should be no future attacks of erysipeloid cellulitis. There are scores of drugs recommended for this purpose. We have found a 5 per cent solution of salicylic acid in compound tincture of benzoin applied to the toes occasionally to be effective.—Hamilton, *South. M. J.*, Aug. '54.

CRYPTORCHISM

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EMBRYOLOGIC ANATOMY

According to Felix,¹ Wells,² and Wyndham,³ the testis, in early embryonic life, is an elongated body extending from the diaphragm to the external inguinal ring, lying parallel and medial to the wolffian body from which the testis acquires its duct system. The testis shortens in the embryo and is held near the abdominal ring by the attachment of the gubernaculum or ligamentum testis. According to Curling,⁴ "the gubernaculum is connected above with the inferior extremity of the testicle and to the lower end of the epididymis and commencement of the vas deferens; the lower part . . . passed out of the abdomen at the abdominal ring." Abnormality of epididymal development is commonly seen in cryptorchism. The lower pole is frequently unattached to the testis. In several instances we have noted attachment at the globus major only, and the epididymis exists as an elongated tubular structure. We have observed in two cases of failure of development of the wolffian system with congenital absence of the kidney, ureter, epididymis, vas deferens, seminal vesicle and half of the vesical triangle; that the testis was found in the normal position of the kidney. The testis could not be drawn down into the scrotum by the cremaster nor held at the abdominal ring because there was no attachment for the gubernaculum in the absence of the epididymis.

PHYSIOLOGY

Hunter⁵ states: "In those animals where the testicles change their situation, the cremaster muscle, which should be named *musculus testis*, has two very different positions in the fetus and in the adult." We have observed regularly the poor development of the cremaster in cryptorchism. We have no doubt but that Hunter's observations were

Read before the Association in annual session, Mobile, April 16, 1954.

1. Felix: Manual of Human Embryology, Philadelphia, Lippincott, 1910.

2. Wells, L. J.: Surgery 14: 436, 1927.

3. Wyndham, N. R.: J. Anat. 77: 179, 1942-43.

4. Curling, T. B.: Lancet 2: 70, 1840-41.

5. Hunter, John: Works of, edited by Palmer, London, 1786.

correct, that the cremaster plays a role in transit of the testis in normal embryonic development in man as well as in animals with migratory testis. We have published a preliminary report on some experiments on young rats. The genito-femoral nerve was divided. The survivors remained in the state of cryptorchism. When the genito-femoral nerve was divided in adult rats, the testis remained in the abdomen or in the scrotum because it could not be retracted nor emerge from the abdomen without activation of the cremaster muscle. The cremaster, which originates in the inguinal canal from fibers closely associated with the internal oblique muscle, passes upward to the epididymis and testis, surrounding the gubernaculum, in animals with migratory testis, and it is found in this position in cryptorchism. By contraction of the cremaster, the testis is drawn downward in certain animals at the onset of the rutting season and then retracted from the scrotum to the inguinal canal by the same muscle at the end of the season.

PATHOLOGY OF CRYPTORCHISM

Abnormal development or failure of attachment of the epididymis at the inferior pole of the testis is undoubtedly a factor in causation of cryptorchism. This anomaly obviates proper attachment of the gubernaculum or ligamentum testis. The epididymis is regularly abnormal in abdominal cryptorchism, frequently abnormal in inguinal retention, and may be normal when the testis is located below the external inguinal ring. The poor development of the cremaster in cryptorchism could be considered of significance.

We have observed that in all cases of cryptorchism the processus vaginalis is patent and extends through the inguinal canal at least to the upper limits of the scrotum. This situation is believed to be the result of cryptorchism and not a causative factor. The inguinal canal is observed to be of normal size in patients with cryptorchism, but the abdominally retained testis usually is too large for passage if the normal transit mechanism were active. Poor development

of the scrotum itself does not seem to play a role in cryptorchism. The third inguinal ring of MacGregor,⁶ more recently described by Surraco,⁷ plays a more vital role in ectopy when the testis is diverted after normal progression through the inguinal canal to the tissues of the abdominal wall beneath Scarpa's fascia or into the perineum, opposite the scrotum or beneath the fascia of the penis. But the testis in cryptorchism may be situated just outside the external inguinal ring, unable to completely descend into the scrotum because of closure of the scrotal ring or because of shortening of the spermatic cord.

Pace and Cabot⁸ and Rea⁹ have exhaustively studied the pathology of the undescended testis in adults and children. Spermatogenesis is lacking or markedly impaired. Fibrosis and thickening of the basement membrane of the tubules are noted. Those testes retained in the inguinal canal apparently show more fibrosis, suggesting that trauma might play a role in its formation. Interstitial cells seem to be of adequate number and the Sertoli cells are well preserved. Bouin and Ancel¹⁰ demonstrated the well-developed condition as well as the function of the interstitial cell in cryptorchism.

Under-development of the testis itself undoubtedly plays a role in cryptorchism. The fact that either Antuitrin S or testosterone can bring about descent of the testis in rutting animals and in some patients with normal development of the gubernaculum and cremaster would indicate stimulation of the mechanism of descent by hormones.

HORMONE THERAPY

Wells² states: "It has been noted during orchidopexy that when the testes fail to descend in response to gonadotropin, anatomical factors are sufficient to explain the failure. . . . Consequently in order to avoid or minimize these anatomical complications, it would seem fundamentally unsound to await the approach of puberty before begin-

6. MacGregor, A. L.: *Surg., Gynec. & Obst.* 49: 273, 1929.

7. Surraco, L. A.: *An. Fac. de med. de Montevideo* 26: 547, 1941.

8. Pace, J. M., and Cabot, H.: *Surg., Gynec. & Obst.* 63: 16, 1936.

9. Rea, C. E.: *Arch. Surg.* 44: 27, 1942.

10. Bouin, P., and Ancel, P.: *J. de physiol. et de path. gen.* 6: 1012, 1904.

ning therapy." The effect of administration of Antuitrin S or testosterone is to advance puberty, which would be most undesirable in young children but tolerable in the period immediately before puberty. We agree with Thompson and Heckel¹¹ that by the use of hormones "we cause descent only in those testes that would descend normally at puberty." They had no results in patients with abdominal cryptorchism. Einhorn and Roundtree¹² had no results in the treatment of three patients past the age of puberty. Two of five right cryptorchids and one of five left cryptorchids had descent of the testis following hormone therapy administered at puberty. Only one of their ten patients in the prepuberty group had descent following therapy. Reiser¹³ concluded: "(1) The value of glandular therapy before the age of puberty is questionable; (2) Glandular therapy at the age of puberty is unnecessary; (3) By the sixteenth year, 55 to 60% of retained testes will have descended spontaneously." There is no proof of fertility in patients with bilateral cryptorchism whose testes descended into the scrotum because of the advancement of puberty, caused by injections of Antuitrin S, but surgery was rendered unnecessary in those patients who were brought for treatment at that age.

We would, therefore, limit the use of Antuitrin S or testosterone to those patients who require them for normal development aside from cryptorchism and to those patients with cryptorchism who are brought for consultation at the age of puberty or immediately prior to its onset. Antuitrin S in the dosage of 500 units should be given hypodermically every third day for ten doses. If the testis fails to descend within one month, surgery should be considered necessary. Deming¹⁴ feels that Antuitrin S therapy is useful preoperatively in that the cord is apparently lengthened, the cremaster improved, and the testes better developed. He states that "surgical orchiectomy has never been necessary following adequate hormonal therapy" in cryptorchism.

SURGICAL INDICATIONS

The finding of a demonstrable hernia is considered an indication for surgery in the

11. Thompson, W. O., and Heckel, H. J.: *J. A. M. A.* 117: 1953, 1941.

12. Einhorn, N. H., and Roundtree, L. G.: *J. Clin. Endocrinol.* 1: 649, 1941.

13. Reiser, C.: *South. Surgeon* 11: 90, 1942.

14. Deming, C. L.: *J. Urol.* 36: 274, 1936.

presence of cryptorchism, unilateral or bilateral, in infants under two years of age. The modification of the Torek procedure herein described is applicable. Correction of the hernia is an integral part of the operation. Orchiopexy, in the absence of demonstrable hernia, in infants may be delayed. We agree with Deming,¹⁵ and with Hamm and Harlin,¹⁶ that orchiopexy is best accomplished under the sixth year.

Abdominal retention of the testes is an indication for surgery. Hormones have been of no avail except for inguinal cryptorchism. Because patients with bilateral cryptorchism whose testes descend at puberty, either with or without hormone therapy, are commonly sterile, because there is no proof of fertility in patients with bilateral cryptorchism whose testes descended as a result of advancement of puberty or surgical intervention shortly before the age of puberty, and because the majority of patients with cryptorchism have a potential if not a demonstrable hernia, it would seem logical to perform surgery at an earlier age.

One might expect better results with hormone therapy in bilateral cryptorchism and logically such treatment should be useless in unilateral maldevelopment. But our experience is that some patients with unilateral cryptorchism show favorable response to Antuitrin S administered at or just before puberty, thus surgery is unnecessary except for the finding of demonstrable hernia. We would, however, advise surgery for unilateral inguinal as well as abdominal retention, if the patient is brought for consultation before the sixth year.

Obviously unilateral cryptorchism is a less serious problem than bilateral maldevelopment, but the incidence of sterility in this group is high, in our experience. This might be interpreted to mean that the spermatogenic maldevelopment is independent of the accompanying cryptorchism. It is our experience that testis tumors occur in the opposite testis or in the testis surgically placed in the scrotal sac. Rusche¹⁷ writes that, among 15 patients with cryptorchism who developed tumor, four had testis tumor on the opposite side, and four had tumor of the cryptorchid testis which had been surgically placed in the scrotum.

We are frequently consulted regarding the problem of cryptorchism in adults. We have recently seen three patients who had had bilateral hernia repair at puberty but the testes were allowed to remain above the inguinal canal because the surgeon felt that the spermatic cord was too short for orchiopexy. These three patients, one a surgeon, were worried about the possibility of tumor formation in the non-descended testes. The incidence of testis tumor in the United States Army during World War II was 1-10,000 during a five-year period, or 1-50,000 per year. If we use a commonly accepted figure on the incidence of cryptorchism in adults of .025%, the incidence of tumor in patients with cryptorchism would be 1-500, or 1-2,500 per year, twenty times the incidence in normally descended testes. This figure is impressive. In the Walter Reed Army Hospital series we had eleven testis tumors in cryptorchids out of 250 tumors treated. Three tumors occurred in patients with unilateral abdominal cryptorchism. One patient had bilateral seminoma in bilateral abdominally retained testes. Four patients developed tumor of unilateral inguinal testis and three in testes which had been surgically placed within the scrotum. Four patients had tumor of the opposite testis in the presence of unilateral inguinal cryptorchism.

We do not hesitate to recommend surgery for bilateral abdominal cryptorchism in adults under thirty-five years of age. Certainly bilateral orchiectomy is contraindicated even when orchiopexy is impossible, but by proper technique almost all testes can be placed within the scrotum where tumor can more readily be detected if it occurs.

For young adults with unilateral abdominal or inguinal cryptorchism, orchiopexy is advised and if the testis cannot be well placed within the scrotum, orchiectomy is advised. We do not recommend orchiopexy after 35 years of age because the incidence of testis tumor is reduced to a very low figure after the third decade of life.

OPERATIVE TECHNIQUE

The modification of the Torek¹⁸ procedure which we have used for twelve years is applicable to all types of inguinal or abdominal cryptorchism with or without hernia. With the patient in supine position on

15. Deming, C. L.: J. Urol. 68: 354, 1952.

16. Hamm, F. C., and Harlin, H. C.: New York State J. Med. 53: 295, 1953.

17. Rusche, C.: J. Urol. 68: 340, 1952.

18. Torek, F.: Ann. Surg. 94: 97, 1931.

the table, an incision is made from the external inguinal ring upward along the direction of the fibers of the external oblique fascia to a point 2 to 3 cm. above the anterior spine of the ilium. The skin and Scarpa's fascia are divided. An external inguinal testis is thus exposed. By dividing the external oblique fascia full length of the incision, the inguinal canal is opened and a testis retained in the canal can be exposed. The internal oblique and transversalis muscles are then sharply divided, full length of the incision. The peritoneum, with its covering of retroperitoneal fascia, is pushed medially, using a sponge in forceps. The internal spermatic vessels and the vas deferens can be visualized through this fascia. The retroperitoneal fascia is incised near the internal spermatic vessels. With the vessels isolated by a tape or Penrose drain, the retroperitoneal fascia is incised upward and downward along the vessels so that they may be visibly freed from all extraneous connections. The vas deferens is likewise freed toward the tip of the seminal vesicle. By dissecting upward toward the renal vessels on the left or toward the vena cava on the right side, adequate length is usually obtained. The small branch of the vein which passes outward into Gerota's fascia near the lower pole of the kidney may be sacrificed to obtain more length if necessary. By dissecting downward along the internal spermatic vessels, they may be freed from the hernia sac or patent processus vaginalis much easier than after the hernia sac is opened. The hernia sac or processus vaginalis is then opened and split downward to the extreme end of the hydrocele sac. In cases of abdominal retention of the testis, the processus vaginalis extends beyond the lower pole of the testis into the upper portion of the scrotum. The hernia sac is cut off very high so that the peritoneum may be closed with a running suture. The excess of tunica vaginalis is resected. The mouth of the scrotum is opened bluntly by stretching the fascial "third inguinal ring" and a good pocket is bluntly prepared within the scrotum. A generous 2 to 3 cm. incision is made at the lowermost portion of the scrotum through the skin, tunica dartos and the external spermatic fascia. An opposing incision is made through the skin of the thigh, down to the fascia. A clamp is passed through the scrotal wound upward to draw the testis into the scrotum and out through the lower

scrotal wound. There is usually sufficient length of cord and vas to allow attachment of the gubernaculum and lower pole of the testis to the deep fascia of the thigh without tension. The skin of the scrotum is sutured to the skin of the thigh, anterior and posterior to the testis. The inguinal wound is then closed as for herniorrhaphy. The testis remains attached to the thigh for 2 to 3 months, or longer. There is little or no interference with normal activity.

We have used the Torek principle, not to pull the testis down but to prevent retraction from scarring in the months postoperative. Although good results have been reported from other methods, we have noted too frequently after the Bevan operation that the testis is located too high in the scrotum where it can be injured. Traction by a suture passed through the lower portion of the scrotum and an intervening rubber band would seem to obviate the second stage of the Torek procedure, but we do not feel that such traction can be maintained long enough to prevent late contraction of scar with retraction of the testis to the upper scrotum. Attachment to the skin of the thigh has proven very unsatisfactory in our hands, because the sutures slough out too early.

Lewis¹⁹ has devised an operation suitable to those patients whose cord and vas are short. By passing the testis through the musculature, medial to the deep epigastric vessels, the distance to the scrotum is shortened.

It is most difficult to evaluate the results of orchiopexy. Fertility is the test, and since most patients are operated upon before puberty, it is hard to keep up with their change of address and a follow-up from 10 to 20 years postoperative is difficult under any circumstances. The short follow-up which is possible indicates good anatomic results from the Torek procedure and after our modification, but the crucial test of fertility so far is lacking.

SUMMARY

The causes of cryptorchism may be listed as (1) maldevelopment of the epididymis with failure of proper attachment at the lower pole of the testis, (2) failure of proper attachment and development of the gubernaculum due to the epididymal maldevelop-

19. Lewis, L. G.: J. Urol. 60: 345, 1948.

opment, (3) poor development of the cremaster, (4) defect of the inguinal canal with hernia, (5) closure of the scrotal ring, (6) failure of development of the scrotum, and (7) lack of hormonal stimulation.

Hormone therapy by administration of Antuitrin S or testosterone is contraindicated in infants and young children because of failures and because of the untoward effects of advancement of puberty. Hormones cause descent only of those testes which would normally descend at puberty and may be used at or just before the onset of puberty.

Indications for surgery are (1) the presence of a demonstrable hernia in infants, (2) abdominal cryptorchism, and (3) failure of hormone therapy at or just before puberty in inguinal cryptorchism.

Surgery is advised at an earlier age (under 6) than heretofore deemed necessary in order to improve our results as far as fertility is concerned.

Because of the higher incidence of testis tumor in cryptorchism orchiopexy is advised in men under 35 years of age. Orchiopexy will not lessen the incidence of malignancy but the testis will be in a place where the diagnosis may be made earlier. In bilateral cryptorchism, when the testes cannot be placed within the scrotum, the gonads should not be removed, but in patients with unilateral disease, the testis may be removed if it cannot be properly placed.

Testis tumor occurs on the opposite side in unilateral cryptorchism, in the surgically placed scrotal testis, or in the abdominally or inguinally retained organ.

THE MANAGEMENT OF BRONCHOPULMONARY DISEASE IN PRIVATE PRACTICE

JOHN E. MOSS, M. D.
Mobile, Alabama

The past decade has seen many revolutionary improvements in the management of bronchopulmonary disease. Patients with acute diseases, such as the bacterial and viral pneumonias, and chronic diseases, such as bronchiectasis and tuberculosis, have been salvaged in many instances by advances in antibiotic and chemotherapy, and by newer surgical techniques. The widespread use of the routine chest x-ray has led to the early discovery of many cases of asymptomatic neoplastic and acid-fast disease, thereby increasing the possibility of cure.

While these advances have been taking place, there also have been some changes noted in the etiologic types of bronchopulmonary pathology seen by the clinician. The rising incidence of cancer of the lung, and the declining incidence of lung abscess, empyema, and the full blown bacterial pneumonias are well known to every practicing physician.

Table I shows the etiologic classification of 100 consecutive cases of significant bronchopulmonary disease as seen in private practice beginning January 1, 1953. Uncom-

plicated bronchitis, bronchial asthma, arrested tuberculosis, and diseases of the upper air passages were excluded from the classification. Only those cases were included which were followed until satisfactory disposition or recommendation was made.

With the exception of pulmonary tuberculosis, it appears that the relative incidence of bronchopulmonary diseases in this series would compare with most others. However, an incidence of 45 per cent tuberculosis in a series of all bronchopulmonary diseases indicates a rather high occurrence of this disease. It indicates, also, totally inadequate facilities for handling tuberculosis in our area.

The following comments on the management of bronchopulmonary disease will be limited to the three conditions most commonly encountered in this series of cases: the pneumonias, bronchiectasis, and pulmonary tuberculosis.

THE PNEUMONIAS

Anyone familiar with the management of the pneumonias in the pre-antibiotic days must be impressed with the changing pattern of this disease. Today it is rare that one sees full-blown lobar pneumonia in pri-

TABLE 1
100 CONSECUTIVE CASES OF BRONCHOPULMONARY
DISEASE SEEN IN PRIVATE PRACTICE

Disease	No. of Cases	Medical Management	Surgical Management	Surgery Recommended But Refused	Operative Deaths
Pulmonary TB	45	Home treatment 21 Referred to san. 8 Observation only 4	Lobectomy 8 Pneumonectomy 1 Plumbage 1	5	1
Pneumonia (Non-TB)	11	11			
Bronchiectasis	11	5	5 Resected 3 Closed 1	1	1
Cancer of lung	10	6			1
Spontaneous pneumothorax (Non-TB)	5	5			
Benign tumors	4	2	2	1	
Emphysema	3	3			
Cystic disease	3	1	2		
Lung abscess	2	1	1		
Pulmonary infarct	2	2			
Empyema	1	1			
Mycotic disease	1	1		1	
Undiagnosed	2	2			
Total	100	65	24	8	3

vate practice. Practically all bacterial pneumonias today have received antibiotic therapy with the onset of respiratory symptoms, thereby aborting lobar consolidation and altering the clinical pattern of the disease. Yet, in rural areas, and in large municipal hospitals where the patient is sometimes negligent in seeking medical care, the death rate for lobar pneumonia remains significantly high. Jeghers and Alexander, in analyzing hospital admissions for lobar pneumonia in Washington, D. C. for 1950, found only five instances of classic bacterial lobar pneumonia among 110 private pneumonia admissions at Georgetown University Hospital. At Gallinger Municipal Hospital there were 172 cases of lobar pneumonia in 548 pneumonia admissions. These figures show a contrast of 4.5 per cent to 31 per cent.

Today it is the exception rather than the rule when a bacteriologic diagnosis is made in pneumonia in private practice. Most cases are seen in the home or office at the onset of fever. The physician attempts to differentiate bacterial and viral pneumonias on the basis of history and physical examination only, and then to prescribe the appropriate antibiotic. The overwhelming majority of the pneumonias are managed successfully in this manner with prompt clin-

ical response and recovery within a few days.

Those cases of pneumonia treated in the home or office which do not show prompt clinical improvement, and all cases with serious associated disease, such as diabetes and heart disease, should be admitted to the hospital.

Once hospitalized, the seriously ill pneumonia patient can immediately have the benefit of bacteriologic study, with institution of appropriate antibiotic therapy, good nursing care and supportive measures, such as oxygen, fluids, relief of pain, and, when necessary, management of peripheral circulatory collapse. A gram stain of the sputum for the predominating organism, sputum culture, chest x-ray, and blood count should be done at once. Remembering that bacterial pneumonias may be superimposed on tuberculous disease, a study for acid-fast organisms should also be done. Particularly if the initial therapy has been unsuccessful, sensitivity tests will often direct one to the proper antibiotic. Seriously ill patients should have the benefit of a blood culture.

Primary atypical pneumonia can usually be differentiated from bacterial pneumonia by slower onset, less productive cough, absence of true pleural pain, normal or rela-

tively low white blood count, and x-ray evidence of patchy infiltration. In questionable cases a study of cold agglutinins in the blood is helpful in diagnosis.

Antibiotic therapy in pneumonia should be determined by the offending organism and by the information gained from sensitivity tests. In general, however, for the pneumococcus and other gram-positive organisms, penicillin is the antibiotic of choice. For Friedlander's bacillus pneumonia, streptomycin, in combination with one of the broad spectrum antibiotics, should be used. Terramycin and aureomycin are preferable in viral pneumonias. Usually antibiotic therapy should be continued for 3 or 4 days after the patient has become afebrile, and there is no evidence of complication.

Our success in treating the pneumonias with antibiotics has sometimes caused us in recent years to disregard time-honored adjuncts to therapy, such as bed rest, relief of pain and cough with codeine, the maintenance of fluid and electrolyte balance, and the control of peripheral vascular collapse. Each of these adjuncts deserves continued use when indicated.

Finally, we must not consider the management of any pneumonia adequate without follow-up examination and chest x-ray study.

BRONCHIECTASIS

In 100 consecutive cases of significant bronchopulmonary pathology, bronchiectasis occurred 11 times. Five cases were treated medically and five surgically, whereas one patient was advised to have surgery and thereafter immediately placed herself under the care of a chiropractor.

The diagnosis of bronchiectasis is suggested by the history of chronic chest disease with cough, expectoration, hemoptysis, and dyspnea. The finding of moist rales on physical examination, particularly at the lung bases, and increased markings on x-ray lend further support to the diagnosis, which is confirmed by bronchography. The instillation of lipiodol is a relatively safe procedure but it should not be done in those patients with limited pulmonary reserve who are not being seriously considered for surgery. Bronchoscopy should be done whenever tumor or foreign body is suspected as a predisposing cause of bronchiectasis.

The treatment of choice is surgical resec-

tion in those patients with localized disease and good pulmonary reserve who are having significant symptoms. Unfortunately many patients with this distressing disease are not candidates for surgery and must be managed medically. Here therapy is directed toward (1) removal of secretions by means of postural drainage, expectorants, and, if necessary, by means of therapeutic bronchoscopy, (2) prophylactic use of sulfonamides and penicillin, (3) the vigorous treatment of intercurrent infections, such as the common cold, with rest and antibiotics both parenterally and by inhalation, and (4) the maintenance of optimal nutrition.

PULMONARY TUBERCULOSIS

Pulmonary tuberculosis was encountered 45 times in 100 consecutive cases of significant bronchopulmonary disease. As we mentioned earlier, this does not reflect the true incidence of the disease in private practice; it reflects conditions peculiar to our area and practice.

Wherever sanatorium facilities are lacking, the private physician must assume the responsibility of the care of the tuberculous patient. Many physicians, because of lack of training, lack of interest, or because of personal fear of the disease, are reluctant to accept these patients for treatment. The result is that the few physicians who treat tuberculosis encounter a relatively high incidence of this disease.

It is not the purpose of this presentation to discuss the advantages and disadvantages of the so-called "home treatment" of tuberculosis as opposed to sanatorium care. Where sanatorium facilities are inadequate, the average patient must be treated at home, and, wherever the proper sociologic and psychologic atmosphere can be provided at home, the end result can be comparable to that attained in a sanatorium. The cooperative patient, who is happiest at home, will do best at home. To minimize the exposure factor, children and young adults must be removed from the household. One or two responsible adults, usually the husband or wife, can be trained in reasonably good isolation technique. These relatives may also be trained to administer streptomycin and trained in other simple nursing duties. In dealing with responsible adults, who are cooperative, the danger of cross-infection becomes minimal.

Despite remarkable advances in antimicrobial therapy and in thoracic surgery, bed

rest remains the common denominator of all good management of tuberculosis. A nutritious diet, supplemented with accessory vitamin intake, is essential.

The subject of antimicrobial therapy is a rapidly changing one and what would appear to be the best regimen today may be discarded in six months. However, one point regarding drug therapy has been firmly established, namely, that resistance to individual drugs is rapidly reached. Because of this, combinations of drugs are essential. The use of a single antimicrobial agent in tuberculosis is rarely, if ever, indicated. As of the moment, probably the best combination is streptomycin and para-amino salicylic acid, continued for an indefinite period, usually months. Isonicotinic acid hydrazid, commonly known as isoniazid or I. N. H., possesses remarkable properties for ameliorating toxic symptoms, but, in general, it should be used as a "booster" drug in acute illness until some degree of stabilization is attained. Whatever the elected program, the clinician must think in terms of long range therapy, and must not risk early drug resistance for the sake of short term clinical improvement.

Definitive procedures in tuberculosis have their heyday of popularity and then enthusiasm for their use wanes. A decade ago artificial pneumothorax enjoyed great popularity, but today it is rarely instituted, though phthisiologists maintain there is still the occasional patient who is a candidate for this procedure. Artificial pneumoperitoneum has been used extensively for the past ten years and continues to be used in many patients with bilateral disease or extensive unilateral disease. However, during the past two years, we have been inducing this method of therapy only occasionally. Thoracoplasty is being done less and less. Today it is done more often to supplement resection than as an independent collapse procedure.

Whereas pneumothorax, pneumoperitoneum, and thoracoplasty are declining in frequency of use, resection surgery is enjoying wide popularity today and is recognized to be of great value in the management of certain types of pulmonary tuberculosis. The indications and contraindications for resection cannot be discussed fully in this presentation. However, the generalization may be made that any pulmonary lesion that is resectable, and that offers a

potential threat to the patient should be removed if the remaining lung tissue can compensate for the tissue removed. The question of compensation by the remaining lung tissue is of particular importance in the older age group where one must consider the problems of emphysema, cardiovascular efficiency, and the other problems of advancing age. It is probably needless to say that surgical procedures, regardless of their nature, do not obviate prolonged periods of rest and antimicrobial therapy.

There is no fixed formula in selecting therapeutic methods in the management of tuberculosis. In many instances patients with identical lesions are managed differently because of economic or psychologic factors. Of great importance, however, is proper timing in the use of the various therapeutic measures at our command. The judicious application of these measures will today result in the rehabilitation of many tuberculous patients, who, just a few short years ago, would have faced years of chronic illness.

1217 Government Street.

Allergic Rhinitis—House dust is probably the commonest single cause of perennial rhinitis. The major factor in house dust is the dust produced by the aging of the cotton linters found in mattresses and in upholstery. This dust seeps onto the floor and is spread by air currents and by being circulated throughout the house by means of hot air furnaces, especially those with forced-air draft. The house dust factor causes trouble during the cold weather, when the house is closed up and the heat is circulating the dust throughout the house, and more time is spent inside.

House dust is a seasonal inhalant in that there is often a flare-up of symptoms during the cold weather and a gradual subsiding of symptoms when the warm weather of late spring returns. Occasionally an unseasonable cold spell in late spring or in August will require the turning on of the heat, and this may cause a temporary acute flare-up of symptoms.

This house dust factor is best controlled by covering the mattresses in the house with a plastic, air-tight cover, or replacing cotton mattresses with those made of foam rubber. Getting rid of heavy draperies and dust-catchers of any sort will help rid the house of this dust factor, but the primary consideration is the encasing of the mattresses.

Cleaning the hot air pipes in the early fall will eliminate much of the dust. Turning up the heat and starting the fan blower will often stir up dust in the pipes so it can be blown outside on a warm day, with the windows kept wide open.—*Canterbury, Illinois M. J., Aug. '54.*

JOURNAL EXCERPTS

Hand Injuries—The postoperative dressing is extremely important and is essential to protection of the involved damaged parts. Whenever possible, the position of function should be assumed. In this position, the wrist is dorsiflexed and the finger joints are all flexed to a moderate degree. The thumb is in a partially abducted position. This position of function may be used for the postoperative dressing in most tendon injuries in the fingers or palm or for nerve injuries. If the extensor tendons have been damaged, then the fingers will have to be extended to a greater degree, but should not be placed in complete extension under any circumstances. The fingers should be separated with gauze and if there has been extensive damage a pressure dressing of mechanics waste should be used. This affords even application of pressure without constriction. The dressing itself is made stable by the application of plaster splints, which are available in all installations during this modern day. This pressure dressing should be applied very carefully and should be comfortable and not cause any localized increased areas of pressure. This type of pressure dressing is best applied with mechanics waste and gauze, rather than Ace bandages. The pressure can be more accurately controlled with multiple layers of gauze, whereas an Ace bandage sometimes tends to constrict, rather than apply proper pressure.

Continuous and uninterrupted elevation of the hand should be provided for thirty-six to forty-eight hours following the initial injury and its repair. Antibiotics are given and the choice of the antibiotic depends upon the condition of the injury and the probable nature of the contaminant organism. Tetanus antitoxin should be administered, or the toxoid, if prior inoculation has been given. If there is no clinical evidence of infection evident within forty-eight hours, the patient may be allowed to be ambulatory and elevation of the hand may be discontinued.

If nerves and tendons have been lacerated and repaired, three or four weeks of immobilization are necessary in order to allow adequate time for healing of these structures. After this period of time, active motion can be started and this is a graded exercise program and full strength should not be demanded until a period of at least six weeks has elapsed, in order to allow complete healing of the parts. If motor nerves have been severed, corrective splinting should follow the removal of the postoperative dressing. In the case of the ulnar nerve, this splinting should be directed towards preventing hyperextension of the metacarpophalangeal joint. In the case of the median nerve, this splinting should be directed toward holding the thumb in the partially or fully opposed position.—*Riordan, J. Louisiana M. Soc., Aug. '54.*

Small Bowel Obstruction—On opening the abdominal cavity, the amount and characteristics of the peritoneal fluid is noted, remembering that bloody fluid indicates an impaired blood supply. A specimen of the contained fluid is taken for bacteriologic investigation including sensitivity studies of the organisms present. If the site of obstruction is obscured by ballooning of the markedly distended bowel a decompressive enterostomy should be considered. Preliminary evacuation of gas and fluid is accomplished with an 18-gauge needle attached to a suction apparatus or to a Luer-Lok syringe equipped with a two-way stopcock permitting hand aspiration. If further decompression is desired, enterostomy clamps are applied on either side of the needle and a purse string suture is placed about the aspiration site; the needle is then removed and may be replaced with a long No. 18 F catheter with minimal contamination. Gentle elevation or tilting of the intestine will cause the fluid contents to run in the direction of the advancing catheter. The use of intermittent suction obviates plugging of the holes in the catheter by intestinal mucosa. As the distended loops of the bowel are emptied, they are reefed gently upon the catheter, permitting emptying of more proximal segments. If a postoperative enterostomy is thought advisable as a safety valve, a second purse string suture is placed about the catheter and pulled snug, thus fixing the catheter to the bowel wall. The proximal end of the catheter is brought out through a stab wound in the abdominal wall. Relief of distention afforded by enterostomy minimizes the danger of accidentally opening the bowel while attempting to free dense band adhesions.

When blood supply has been impaired, viability must be determined. The absence of arterial pulsations along the mesenteric border, and the failure of peristalsis to progress over the questionable area are generally considered reliable. The final decision, however, is not made for as long as twenty to thirty minutes after relieving the obstruction. During this interval, the inhalation of 100 per cent oxygen may be helpful. Five to 10 cc. of 1 per cent novocaine are injected into the adjacent mesentery and the questionable bowel is placed in warm saline packs or returned to the abdominal cavity. The latter maneuver serves to minimize any stretch on the mesenteric vessels. Resection followed by an end-to-end anastomosis is indicated if the viability is still questioned at the end of this waiting period.

Before closure, the surgeon must examine the entire small bowel, section by section, from the ligament of Treitz to the ileocecal valve, to be certain no secondary lesion or cause of obstruction exists.—*Ellison, Rocky Mountain M. J., Aug. '54.*

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THE MONTH IN WASHINGTON

While Congress did not enact all the health bills President Eisenhower's administration wanted to put through, it did mark up an imposing record of accomplishment. In fact it passed more health and medical legislation than any Congress in many, many years. The American Medical Association actively supported most of the bills finally enacted, and opposed none of them.

Four important new laws were written into the statutes before the session ended—expansion of the Hill-Burton hospital construction program, expansion of the vocational rehabilitation program, amendment of the income tax law to allow more liberal deductions for medical expenses, and transfer of the responsibility for health of the Indians to the U. S. Public Health Service.

For years a group of state health officers have been working to bring about the transfer of Indian hospital and medical service from the Indian Bureau in the Department of the Interior to the Public Health Service in what is now the Department of Health, Education, and Welfare. The health officers could show beyond any question that the Indians were receiving far less medical care than the rest of the population. They maintained that if the Public Health Service were made responsible for the Indians' health, there would be a rapid change for the better on the reservations.

What might be called governmental inertia succeeded in holding up the legislation for a time, but this Congress decided to make a shift. The Public Health Service, which will take over on the reservations next July 1, already has plans under way to insure the Indians more and better medical care.

The demands for a more dynamic vocational rehabilitation program have been building up outside the federal government as well as in Washington. The problem facing this administration was to get more people rehabilitated but at the same time to induce the states to take a more active part in the work. The law now enacted promises to do this. It authorizes gradual increases in the federal appropriations, but at the same time is aimed at bringing the states up to the position of full financial partners by the end of five years. The goal is to rehabilitate at least 200,000 persons annually, in place of the present 60,000.

If local communities are willing to raise from one-third to one-half of the cost, the new Hill-Burton program should result in the construction, within three years, of possibly a half billion dollars in new facilities—rehabilitation centers, diagnostic-treatment clinics, chronic disease hospitals, and nursing homes. (This program was discussed in detail last month in this space.) The new construction will be in addition to the continuing Hill-Burton grants for complete hospitals.

On the medical cost deduction question, too, economists long have felt that families with unusually large medical expenses should be given more liberal tax deductions. The new law will allow them to deduct medical expenses in excess of three per cent of taxable income. Under the old law the figure was five per cent. A \$3,000-income family with \$150 in medical expenses under the old law could deduct nothing, but under the new law \$60. The Treasury estimates that the total saving to families will be \$80 million.

The general public probably read and heard more about the one bill that was defeated—reinsurance—than it did about all the health and medical legislation that passed. That defeat (in the House) was a surprise and a disappointment to the President. His advisors might have told him that all was not well, but obviously they did not. Opposition was not confined to the American Medical Association. Also lined up against it were most of the health insurance companies, the U. S. Chamber of Commerce and a number of other professional groups. The labor unions would accept it, but would not work to get it. Most significant of all, it had lukewarm support at best from the lawmakers who knew most about it, the Senate and House committees that conducted the hearings.

THE PEOPLE WILL DECIDE

The recent defeat in the House of Representatives of the President's proposal to increase benefits for medical care brings to mind that organized medicine looks with a jaundiced eye on any government move to improve health service. Since its inception the Public Health Service has been jealously watched that it might not interfere with the doctor's income.

Seventy-five years ago a man with or without a high school education could at-

tend two six-month courses at a medical college and begin the practice of medicine. In due time he learned the art, got into a rut, or quit practice. Experience was his teacher. His neighbors were his patients.

With this experience and association the doctors became pillars in the local structure, took part in community activities, and became mayors, representatives and senators. One in Alabama became a governor—and a good one. They were in touch with the people.

Dr. William Osler, in *The Fixed Period*, said that a man should study until he was 25, investigate until he was 40, and then work. At 60 he should retire. On that assertion the remark of Anthony Trollope was brought in that he should be chloroformed at 60, though Dr. Osler never recommended that procedure.

This is mentioned as suggestive of the type of investigation for doctors of that age. They learned by doing. They became a part of the neighboring families. Dr. Seale Harris tells us that there could be no better training for a doctor than six months as a night nurse in a hospital. In those old days a doctor did his own nursing. Giving enemas and manipulating bedpans came easy.

Times have changed. The doctor is no longer a pillar. In a recent survey by Dr. Frank G. Dickinson, Director of Economic Research for the American Medical Association, we are told that there are more doctors than ever, and plenty to take care of the reported shortage. Improved methods of communication and transportation, he tells us, with modern roads, have changed what was once a six-hour call to a telephone message and a thirty-minute trip. Try it. Chances are the doctor won't come. You may be advised to come to his office at ten o'clock the next morning.

There are few family doctors. A lot of the doctors listed by Dr. Dickinson might be classed as skilled laborers, working eight hours a day with Thursdays and Sundays off. They have concentrated on the study of medicine ten years to an extent that prevents them from keeping abreast of the progress in other fields. After this time and expense, naturally their first aim is security. But they yet need the 15 years of investigation prescribed by Dr. Osler, which the older and uneducated doctors enjoyed. The love, friendship, consideration and un-

derstanding of these years have their values, also. Be a good neighbor. Know the facts of life and be human.

Reverting to government efforts to improve medical care, the American Medical Association says this is the road to socialized medicine. Arbitrary refusal to cooperate with this effort is another road to the same place. The clamor for improvement has some basis. The doctors and the people should get together to have a service the people like. Socialized medicine is an evil. I know. I tried it, in contract practice, for years. For a time everything was free. It was chaotic. Something for nothing is appealing to the common herd, but contrary to all common sense. We finally had to put on a minimum charge and the evil was abated. It works better now.

After all, the American Medical Association is not going to decide whether we have socialized medicine. The people, our patients, those who get our services, will decide. The people usually get what they think they want. Votes make the decision.

Investigation of practice in England after the Conservatives had ironed out some of the kinks and put on minimum charges shows that the people like socialized medicine. Poor folks who never had spectacles or false teeth are now well supplied and happy. Their sick and crippled are being cared for. The rich may get any extra service they pay for, but the poor are getting a comparatively free medical care, and like it.

If our service is better, keep it better and convince the people.

R. E. Hale, M. D.

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

THINK ABOUT IT

W. A. Dozier, Jr.

Director of Public Relations

Most of us too seldom consider it at all, or we have become so accustomed to our huge national debt that we just ignore it. Maybe Dr. Frank G. Dickinson's pictorial description has not been disseminated widely enough. He likened the American people to a group riding piggy-back on their children to the grave.

The size of the Federal debt was brought out dramatically in the February *Monthly Review* of the Federal Reserve Bank of Dallas. The debt now stands at approximately \$275 billion, or the equivalent of \$1,725 for every man, woman, and child in the United States. In 1940 the per capita debt was \$325, as compared with \$132 in 1930.

The productive capacity of the United States exceeds that of every other nation in the world. The Federal debt outstanding at the end of 1953 amounted to almost 75 per cent of the dollar value of the gross production which flowed from the nation's farms, factories, mines, and other enterprises during the year. In 1940 the proportion was about 42 per cent; in 1930, approximately 18 per cent.

At the end of 1952, the Federal debt accounted for an estimated 44 per cent of total public and private debt. In 1940, this proportion was 25 per cent; in 1930, nine per cent.

"The greatly expanded Federal debt is an integral part of the business and financial framework of the United States, a member which is virtually certain to endure far beyond the foreseeable future," the Bank says.

On top of all this, some politicians have begun saying the debt limit, which is set by law, must be raised! Would it not be better to lower it!

Some people claim that the national debt does not matter for we owe it to ourselves. A more fallacious bit of unreasoning is hard to imagine.

Yes, most of us too seldom consider it at all; and those who do seem to overlook the urgency of the problem. It is time all of us not only thought about it but began demanding that remedial action be taken.

NEXT MEETING OF THE ASSOCIATION MONTGOMERY APRIL 21, 22, 23, 1955
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STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

BANTING, INSULIN AND DIABETES

Some men and women of unusual achievement give promise of their future greatness as youngsters. But some do not. In fact many do not. And one who did not was Frederick Grant Banting.

He was born on his father's farm in Alliston, Ontario, Canada, on November 4, 1891. His family consisted of hard-working people who made no pretense to wealth or society. His home life appears to have been about like that of any other normal boy. Someone has called his home "a place of contentment and honest toil."

At the neighborhood high school he turned out to be about an average student. He was steady and reliable. He worked hard. He enjoyed the respect and confidence of his fellow students and his teachers. But, as already indicated, he did not attract attention by his brilliance.

After finishing high school, he enrolled in Victoria College, affiliated with the much better known University of Toronto. In 1912 he began the study of medicine by entering the medical school of the University of Toronto.

Like so many other students of his period, medical students and others, he had his studies interrupted by the first World War. Eager to serve, he enlisted in the Canadian Medical Corps and after a time rose to the rank of sergeant. Then, having favorably impressed his commanding officer, he was induced to return to the University of Toronto and complete his medical education. He received his medical degree in December 1916. Now fully ready to serve the sick and wounded, he went overseas with a group of his fellow students and saw some tough action. He was severely wounded near Cambrai. The bravery he displayed at that time won him a distinguished honor: He received the Military Cross.

Again like many other young men of his period, he faced the problem of what to do

with himself after the war's end. He solved it by becoming a senior interne in surgery at the Hospital for Sick Children in Toronto. This work interested him less for the salary he would receive than for the chance it offered to gain some excellent experience. That won, he began the practice of medicine in London, Ontario.

He looked forward to rapid advancement in his profession. But his beginning as a private duty physician was not auspicious. Like another doctor who was to win international fame, Marion Sims, he waited in vain for more than a few patients to show up in his office. But he did not do what Dr. Sims did—leave for another part of the country. Instead, he took on a part-time job to supplement his income. This made him an assistant in the University of Western Ontario. His work was in the Department of Physiology.

In late October 1920, Dr. Banting was hard at work on a lecture he was to deliver on the physiology of the pancreas. In the course of his preparation he chanced to open a medical journal which had just arrived. And, as chance had it, the place at which the publication opened contained an article describing the author's experiments with laboratory animals which apparently had proved immune to diabetes. That article gave him an idea which put him to work. His object was to provide for man a substitute for the insulin which nature normally provides as a protection against diabetes.

The theory that flashed upon him that October night remained just that—a theory—for a short time. Then he got busy trying to turn it into a means of actually protecting people from diabetes. At his alma mater, the University of Toronto, was Professor J. J. R. Macleod, director of the University's Department of Physiology. The youth talked earnestly with the older man about his theory. He admitted that what he was attempting to do had been tried, without success, by some of the leading medical men of the day. Both men agreed that the outlook for success was not at all encouraging. But both also agreed that the chance was worth taking.

Dr. Macleod offered to help. He set aside a small cubbyhole in which the young enthusiast might work. He loaned him an assistant who could perform sugar-presence tests of blood and urine. He also turned over to Dr. Banting some dogs which would be needed for experimental purposes.

Dr. Banting was fortunate indeed in the choice of that assistant. For he was Dr. Charles H. Best, as eager and as interested as Dr. Banting himself. Both were so enthusiastic that they were willing to spend many weary weeks at work on the project, without pay of any kind.

There were the usual initial disappointments and false starts. The men's techniques were not quite right. But they kept plugging along. As time went on, they thought they saw signs of success not far ahead. Then they were ready for the all-important test of the fruits of their labors. A dog which had been given diabetes artificially began to show the usual signs and symptoms. Its blood began to contain abnormally large amounts of sugar. Death, the end of the road for most diabetics of that time, either human or canine, seemed just ahead. It would indeed be an achievement to reverse that downward trend, if it could be done.

The product which these two men had prepared was administered. In a short time the hoped-for reversal occurred. The dog did not die. It no longer acted or looked sick. Instead, it began to wag its tail and act like a normal animal in every respect. And, when Drs. Banting and Best took a blood sample for sugar analysis, it was found to be normal.

The Banting theory had fully justified itself. But this team was still far from a solution of the diabetes problem. For one thing, the procedure they had developed for producing insulin artificially was terribly slow. It became evident immediately that some method needed to be developed for turning it out at a much faster rate.

Dr. Banting recalled that medical journal article he had read several months before, the one that had set him on this long quest. He looked it up and read it again carefully. That second reading convinced him that he needed very young, or even unborn, calves as a source. An obliging slaughter house was glad to give him all the calf embryos he needed without charge. From them he

was soon producing insulin in vastly larger quantities.

He still faced the problem of purity. He improved his technique and in time was producing insulin which he considered sufficiently pure to be tried on humans. At the Toronto General Hospital he found three diabetic patients, and they became the first humans to use the Banting insulin. They reacted favorably to its use. The sugar content of their blood dropped markedly, and sugar disappeared entirely from the urine.

But Dr. Banting was sure his insulin was still not pure enough for continuous use. The task of further purification was not one for a single man or even these two men but called for the combined talents of a number of outstanding men of science. His friend, Prof. Macleod, dropped what he was doing and contributed his knowledge and skill. Laboratories in widely scattered places made their own contributions, large and small, important and unimportant. And in time insulin was available in pure crystallized form.

Even before that peak of purity was reached, insulin began performing what doctors and laymen alike called miracles of medicine. Doctors who had seen their diabetic patients drift swiftly toward death under every other form of treatment spoke of their having "come back to life" after the inauguration of insulin therapy.

It may be well, however, to interpolate a few words of warning and caution at this point. Effective as it is, insulin is not a cure for diabetes. It does not restore the natural manufacture of this product. The patient remains in good health only as long as he continues to use it. Immediately after its use is discontinued, the usual diabetes symptoms return. And so does sugar in the blood and urine.

But, in spite of these limitations and drawbacks, Banting's insulin has changed the diabetic's outlook. It has enabled him to live virtually a normal life. He can work reasonably hard. He can enjoy social activity. And death from diabetes can be kept at a safe distance in most cases.

An achievement like this is something the world is eager to applaud. The 1923 Nobel Prize was awarded Banting and his fellow worker, Professor Macleod. This—the cash award—they generously divided with Dr. Best and Dr. J. B. Collip, another research

scientist who had become interested in the work with insulin and had made important contributions to it. Banting became indeed a world figure. The Canadian government awarded him a substantial sum of money as an annual income, so as to make it possible for him to devote himself to research without being too much concerned with earning a livelihood. The University of Toronto, which had shared in the reflected glory of his fame, established the Banting and Best Department of Medical Research. The former was named its director, to be followed in that post by Dr. Best. The Banting Institute for Medical Research was launched in 1930. And in 1934 this former youth who gave little promise of future greatness became Sir Frederick Grant Banting upon being knighted by King George V.

Dr. Banting was nearly 48 years of age when the second World War began. That made him rather old for active service on or near the battlefield. But this man who had done so much for his native country and the world threw himself wholeheartedly into the effort to bring the war to a successful conclusion. He decided he could help most by working in the field of aviation medicine. He was made chairman of a committee devoted to research in that subject.

It was that work which took him to his death. His research activities had reached a stage early in 1941 which made it advisable for him to make a trip to England. A bomber was chosen as his vehicle for the voyage. Something went wrong. The plane crashed in the early hours of February 21 on the east coast of Newfoundland. A doctor to the end, Sir Frederick Banting did what he could for the other passengers before he himself died. This was learned by those who searched for the plane after it was reported missing.

Banting was a shy man. He did not warm up to strangers immediately. Some found him somewhat distant when they first became associated with him. But those who grew to know him better—those who managed to penetrate that misleading film of shyness—grew to admire and love him as they admired and loved few men. His friendship was something to be highly prized by those upon whom it had been bestowed. And his friends were by no means limited to the famous. He developed a particular fondness for those associated with him in day-by-day labors. Young research

enthusiasts regarded him with something approaching adoration.

"Why should one become a research worker?" people asked him. He gave a general answer in an address at Edinburgh University in 1928. He said:

"Do not enter upon research unless you cannot help it. Ask yourself the 'why' of every statement that is made and think of your own answer. If through your thoughtful work you get a worth-while idea, it will get you. . . . It is not within the power of the properly constructed human mind to be satisfied. Progress would cease if this were the case. The greatest joy in life is to accomplish. It is the getting, not the having. It is the giving, not the keeping."

"I am a firm believer in the theory that you can do or be anything that you wish in this world, within reason, if you are prepared to make the sacrifices, think and work hard enough, and long enough."

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

June 1954

Examinations for diphtheria bacilli and	
Vincent's	102
Agglutination tests	1,036
Typhoid cultures (blood, feces and urine)	654
Brucella cultures	7
Examinations for malaria	217
Examinations for intestinal parasites	3,529
Serologic tests for syphilis (blood and spinal fluid)	25,669
Darkfield examinations	3
Examinations for gonococci	1,564
Examinations for tubercle bacilli	3,449
Examinations for meningococci	0
Examinations for Negri bodies	107
Water examinations	1,894
Milk and dairy products examinations	5,609
Miscellaneous	3,032
	Total 46,872

Perhaps the most vital contribution made by the good tuberculosis sanatorium today, and not always clearly recognized, is the education of the patient. The patient who is put to bed in a sanatorium is first given encouragement and hope; in addition, he is taught respect for a relapsing and contagious disease, a respect made necessary by the undue optimism generated, in particular, by the lay press. Day after day physician and nurse will be able to impress him, individually and in groups, with the necessity of acquiescing to his disease, at least temporarily, and in appropriate cases, of managing his later life in accordance with his condition.—Roger S. Mitchell, M. D., J. A. M. A., March 20, 1954.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR APRIL 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered April 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Total live births	5995	3797	2198	22.8	21.8	23.0
Total stillbirths	152	66	86	24.7	24.1	25.5
Deaths, stillbirths excluded	1943	1192	751	7.4	8.2	8.7
Infant deaths—						
under one year	203	109	94	33.9	34.6	40.7
under one month	147	83	64	24.5	23.8	26.3
Cause of Death						
Tuberculosis, 001-019	42	20	22	15.9	16.1	24.1
Syphilis, 020-029	6	2	4	2.3	4.2	5.4
Dysentery, 045-048	1	1		0.4	1.2	0.8
Diphtheria, 055					0.4	
Whooping cough, 056					0.4	
Meningococcal infections, 057	2	2		0.8	1.5	0.4
Poliomyelitis, 080, 081	2	2		0.8	0.4	0.8
Encephalitis, 082, 083					0.4	
Measles, 085	6	4	2	2.3	0.8	3.5
Malignant neoplasms, 140-205	216	150	66	82.0	85.2	77.8
Diabetes mellitus, 260	25	22	3	9.5	11.9	7.4
Pellagra, 281	1	1		0.4	0.8	2.3
Vascular lesions of central nervous system, 330-334	254	144	110	96.4	102.8	101.5
Other diseases of nervous system and organs of special sense, 340-398	16	12	4	6.1	8.8	12.4
Rheumatic fever, 400-402	4	2	2	1.5	1.5	1.6
Diseases of the heart, 410-434	463	332	131	175.8	196.5	
Hypertension with heart disease, 440-443	135	71	64	51.3	55.6	275.4
Diseases of the arteries, 450-456	32	16	16	12.1	13.8	12.4
Other diseases of circulatory system, 444-447, 460-468	26	15	11	9.9	12.3	16.3
Influenza, 480-483	16	8	8	6.1	9.6	11.7
Pneumonia, 490-493	52	23	29	19.7	29.2	33.8
Bronchitis, 500-502	2	1	1	0.8	1.2	1.9
Appendicitis, 550-553	6	2	4	2.3	1.2	0.8
Intestinal obstruction and hernia, 560, 561, 570	10	7	3	3.8	3.8	4.7
Gastro-enteritis and colitis (under 2) 571.0, 764	7	2	5	2.7	1.9	2.3
Cirrhosis of liver, 581	13	10	3	4.9	2.7	4.3
Diseases of pregnancy and childbirth, 640-689	6	3	3	9.8	17.2	8.2
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	1	1		1.6	1.7	
Congenital malformations, 750-759	24	20	4	4.0	6.0	4.7
Accidental deaths, total, 800-962	146	85	61	55.4	59.1	57.2
Motor vehicle accidents, 810-835, 960	56	32	24	21.3	24.2	18.7
All other defined causes	317	191	126	120.4	141.6	149.3
Ill-defined and unknown causes, 780-793, 795	110	42	68	41.8	38.0	51.7

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

PROVISIONAL BIRTH AND DEATH STATISTICS FOR MAY 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered May 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Total live births	5940	3704	2236	21.8	21.6	22.2
Total stillbirths	168	66	102	27.5	30.6	29.2
Deaths, stillbirths excluded	2146	1364	782	7.9	8.0	8.3
Infant deaths—						
under one year	227	130	97	38.2	36.2	33.0
under one month	169	108	61	28.4	27.0	21.9
Cause of Death						
Tuberculosis, 001-019	36	18	18	13.2	14.5	21.8
Syphilis, 020-029	6	2	4	2.2	3.0	4.1
Dysentery, 045-048	1			0.7	1.1	
Diphtheria, 055				0.4	0.4	
Whooping cough, 056				0.4	0.4	
Meningococcal infections, 057	2	1	1	0.7	0.4	0.4
Poliomyelitis, 080, 081	3	2	1	1.1	0.4	0.4
Encephalitis, 082, 083	1		1	0.4	0.4	
Measles, 085	4	4		1.5		1.9
Malignant neoplasms, 140-205	278	194	84	102.1	99.5	86.9
Diabetes mellitus, 260	19	13	6	7.0	11.1	9.4
Pellagra, 281	1	1		0.4	0.4	1.1
Vascular lesions of central nervous system, 330-334	290	167	123	106.6	104.7	97.1
Other diseases of nervous system and organs of special sense, 340-398	29	12	17	10.7	6.3	12.4
Rheumatic fever, 400-402	4	3	1	1.5	1.5	1.1
Diseases of heart, 410-434	533	402	131	195.8	184.2	
Hypertension with heart disease, 440-443	156	78	78	57.3	62.4	266.5
Diseases of the arteries, 450-456	26	20	6	9.6	13.4	15.0
Other diseases of circulatory system, 444-447	20	10	10	7.3	14.5	11.7
Influenza, 480-483	14	6	8	5.1	5.2	6.0
Pneumonia, 490-493	52	26	26	19.1	21.5	27.5
Bronchitis, 500-502	3	2	1	1.1		2.6
Appendicitis, 550-553	3	2	1	1.1	2.6	1.5
Intestinal obstruction and hernia, 560, 561, 570	11	6	5	4.0	3.7	5.3
Gastro-enteritis and colitis (under 2) 571.0, 764	9	2	7	3.3	3.0	3.0
Cirrhosis of liver, 581	12	9	3	4.4	3.0	4.1
Diseases of pregnancy and childbirth, 640-689	9	5	4	14.7	11.7	16.5
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	3	2	1	4.9		
Congenital malformations, 750-759	42	37	5	7.1	5.0	4.4
Accidental deaths, total 800-962	146	104	42	53.6	54.6	63.6
Motor vehicle accidents, 810-835, 960	76	62	14	27.9	21.2	24.5
All other defined causes	370	215	155	135.9	146.3	131.4
Ill-defined and unknown causes, 780-793, 795	64	22	42	23.5	33.4	36.9

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

BOOK ABSTRACTS AND REVIEWS

A Manual of Tropical Medicine: By Thomas T. Mackie, M. D., Colonel, M. C., A. U. S. (Retired), Chairman, The American Foundation For Tropical Medicine, George W. Hunter, III, Ph. D., Colonel, M. S. C., U. S. A., Chief, Section of Parasitology-Entomology, Fourth Army Area Medical Laboratory, Brooke Army Medical Center, Fort Sam Houston, Texas; and C. Brooke Worth, M. D., Field Staff Member, Division of Medicine and Public Health, The Rockefeller Foundation. Second edition. 907 pages with 304 illustrations, 7 in color. Philadelphia and London: W. B. Saunders Company, 1954. Price, \$12.00.

This volume represents the first revision since the original publication of this Manual of Tropical Medicine in 1945. The original volume was one of a series of military medical manuals authorized by the National Research Council and published by Saunders. This second edition is by the same three authors but carries quite a different and somewhat longer list of collaborators than did the original one. For the past decade many factors, outside the field of medicine, have continued to focus the world's attention on many of the areas in which so-called "tropical diseases" are endemic. Many more Americans have returned from such areas and potential contact with tropical diseases than was ever before thought possible. Such migrations of population must broaden a physician's horizon and increase his interest in tropical medicine.

In this second edition the authors have attempted to bring their text up-to-date both as to knowledge of tropical diseases and in respect to more recent advances in their therapy. Those physicians who own the original edition of the Manual of Tropical Medicine will gladly welcome this second edition. Those physicians who do not own the first edition and who are not familiar with, but who have any interest at all in tropical medicine, will find this second edition a very handy and dependable reference work.

J. M. Barnes, M. D.

Diseases of Women. By Robert James Crossen, A. B., M. D., F. A. C. S., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine. Tenth edition. Cloth. Price, \$18.50. Pp. 935, with 990 illustrations. St. Louis, The C. V. Mosby Co., 1953.

This is the tenth edition of a book which has been one of the three or four standard works in its field since the first edition was written in 1907. This is the first edition written solely by the present author and he has done a remarkable job. His aim has "been to present for the student the basic facts and salient developments in biologic and physiologic investigations . . . , and to bring to the practitioner a comprehensive systematic judicial consideration of the diagnostic and therapeutic aids made possible by these

great advances in knowledge." This book is as all-inclusive as such a book can be in covering the latest theory and practice and it includes detailed descriptions of basic parts of gynecology which have remained relatively unchanged with time.

The first chapter (116 pages) is on the anatomy and physiology of the genital tract and these subjects are covered thoroughly. In the chapter on diagnosis, the psychosomatic aspects of gynecology are emphasized more strongly than in most texts and there is considerable discussion of the psychodynamics of pelvic symptoms. The methods of diagnosis are well presented and illustrated. The succeeding chapters take up each organ individually and the diseases affecting them. For each disease the etiology, pathology, symptoms, diagnosis, and treatment are well presented with illustrations of all standard procedures. A. N. Arneson wrote the section on radiation therapy of cervical cancer and Willard Allen wrote the section on the endocrinology of the menstrual cycle. The chapter on sterility is particularly detailed and the procedures recommended are consistent with those of the American Society for the Study of Sterility. The last chapter is on the medicolegal aspects of gynecology.

One can neither read this book nor write a review of it without enthusiasm. The book is well printed and the illustrations are excellent with many new and original ones. The illustrations are particularly improved over the previous editions as to simplicity and clarity. Dr. Crossen's style of writing is simple and good. Although some subjects are not as detailed as some specialists might like, there is no more complete gynecology book on the market. So, this tenth edition is fully recommended to all students and physicians.

Joe W. Perry, M. D.

Current Therapy: Latest Approved Methods of Treatment for the Practicing Physician. Editor: Howard F. Conn, M. D. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, and Robert H. Williams. Price, \$11.00. 898 pages. Philadelphia and London: W. B. Saunders Company, 1954.

This is number six in the series which began in the year 1949. The current volume, as its predecessors, is edited by Dr. Howard F. Conn and is composed of material from a large number of contributors. The present volume alone contains methods by some 192 new contributors. Each year's revision has seen much new added material although a great deal of the original material continues through the past several volumes. The value of the annual revision is ob-

vious and should provide a more flexible and more authoritative reference work.

As in the past, this text is divided into some fifteen sections, thereby making possible convenient grouping of the various diseases that are discussed. A sixteenth section contains certain

appendices and indices and is designed to increase the usefulness of the book generally. As in the past five years this reviewer agrees that this is a most useful text for reference to current therapy.

J. M. Barnes, M. D.

AMERICAN MEDICAL ASSOCIATION NEWS

PARENTS SHOULD BE ALERT TO CANCER IN CHILDREN

Children do not have cancer as often as adults, but early diagnosis is even more important for them than for their elders.

The disease spreads and progresses more rapidly in children, and the symptoms are often confused, resembling many common childhood illnesses. Because of this, the disease may go unrecognized until it is too late for cure.

Dr. Frank L. Rector, Evanston, Ill., said in the August Today's Health magazine, published by the American Medical Association, that parents should be alert to these dangers. He said prompt diagnosis and treatment can save the child's life.

Cancer, when it does occur in children, follows definite patterns. From birth to five years the predominating types are cancer of the kidney, eye and central nervous system, and leukemia; from five to 10 years, leukemia and central nervous system tumors and fewer eye cancers; and from 10 to 15 years, bone tumors. From 15 to 20 years the adult types become more common, he said.

A mother may notice the signs of kidney cancer, or Wilms's tumor, when changing a diaper. The major symptom is abnormal fullness in the back on the side of the involved kidney. There is no pain and no other symptoms.

Neuroblastoma, the most common abdominal type among infants, is suggested by painless abdominal enlargement, pallor, loss of weight and some fever.

Central nervous system cancer has various symptoms depending on the part of the brain involved. In older children there may be unsteadiness of walk, disturbances of vision, headaches and upset stomach without relation to eating. There may be personality changes: "an obedient, likeable, studious

and dependable child may rather suddenly develop opposite characteristics," Dr. Rector said.

Cloudiness or "cat's eye," may be a warning of an eye cancer, and cancer of the bone is a possibility when there is a painful and tender swelling in or near the joint of a long bone such as the shoulder, elbow, wrist, hip, knee or ankle.

Most moles and warts are as harmless in children as in adults. However, if a mole or wart changes to a dark color, hurts, or bleeds when irritated, it should be examined microscopically.

As with all cancer, little can be done to prevent it in children but it can be cured if discovered early, Dr. Rector said. Parents should learn that "a knowledge of the major signs and symptoms encountered in these ages is essential to recognition; and that prompt diagnosis with proper treatment as soon as cancer is found will go far toward saving the patient's life."

BODY ARMOR RECOMMENDED FOR CIVILIAN USE

The eight-pound nylon body armor first tested in Korea should be considered for civilian use, Army officers said recently.

Field trials showed the armor was most effective in protecting against chest and abdominal wounds, particularly when the bullet or shell fragment hit at an angle or was of low velocity, they said. Thus it would be effective during an attack on cities, when injuries from flying debris are frequent.

"The battlefield is no longer confined, and the spectre of atom-bomb or H-bomb blasts on homeland cities is an accepted prospect," they said. "Injury from flying debris, such as masonry, metal, glass, etc., is of great importance after such a blast, and conceivably the use of body armor could lessen appreciably the staggering morbidity and mortality anticipated in such a mass civilian disaster."

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SURGICAL PLANING

AN OFFICE PROCEDURE FOR THE REMOVAL OF FACIAL SCARS AND PORT WINE STAINS

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The psychic trauma of disfiguring facial scars or marks is a burden which afflicted people have heretofore had to bear with little hope of relief. These people have tended to become shy, introverted characters sheltered in the inner family circle. The removal of such scars and marks, whether these be due to auto accidents, acne, smallpox, or port wine stains, opens up a new world to them. This is now made possible by the technique of dermal abrasion known as surgical or plastic planing.

The use of abrasion as a technique in dermatologic cosmetic surgery was first described by Kromayer¹ in 1933. He attached a steel burr to a motor powered tool and abraded various lesions of the skin, such as juvenile warts, freckles, and pigmentations. In 1947 Iverson² used ordinary carpenter's sandpaper to remove traumatic tattoos of the face. This operation was performed under general anesthesia and continued with the coagulating effect of tannic acid and silver nitrate. McEvitt³ in 1948 and Iverson⁴ later adapted this sandpapering technique to the removal of facial scars and pigmentations, including acne scars and freckles.

Burks,⁵ in commenting on the disadvantages of sandpapering, states: "There is the risk involved in the use of a general anesthetic for an elective reconstructive procedure. The cost of hospitalization is an expense to the patient, which must frequently be repeated by the necessity of re-sanding. Furthermore, basically, the sanding of broad surfaces does not allow for selectivity and encompasses uninvolved as well as involved skin. Finally, foreign body silica granulomata may occur."

Kurtin,⁶ recognizing these disadvantages, substituted refrigeration of the skin with ethyl chloride for a general anesthetic, and motor powered wire brushes for the sandpaper. This method, which he calls "Surgical Planing," was safe and could be used in the office to remove acne pits, traumatic scars, tattoos, wrinkles and other facial marks. In 1953 he reported on 273 cases treated by this method. Early this year Rein and Blau⁷ sent questionnaires to ninety-seven doctors using Kurtin's technique, of whom seventy responded indicating that they had treated 2206 patients with satisfactory results.

This report will deal with the technique

1. Kromayer, E.: Das Frasen in der Kosmetik, Kosmetologische Rundschau 4: 61, 1933.

2. Iverson, P. C.: Surgical Removal of Traumatic Tattoos, Plast. & Reconstruct. Surg. 2: 427, 1947.

3. McEvitt, W. G.: Acne Pits, J. Michigan M. Soc. 47: 1243, 1948.

4. Iverson, P. C.: Further Developments in the Treatment of Skin Lesions by Surgical Abrasion, Plast. & Reconstruct. Surg. 12: 27, 1953.

5. Burks, J. W., Jr.: Removal of Scars by Abrasion, An Office Procedure, J. Louisiana State M. Soc.: In publication.

6. Kurtin, A.: Corrective Surgical Planing of Skin, Arch. Dermat. & Syph. 68: 389, 1953.

7. Rein, C. R., and Blau, S. J.: Dermabrasion of the Acne Pit. Read before the 74th Annual Meeting of the American Dermatological Association, White Sulphur Springs, W. Va., April 14, to 17, 1954.

of dermal abrasion by the surgical planing method, as devised by Kurtin, and with the results of its use in various conditions affecting the skin.

METHOD

The procedure may be carried out in the office. The equipment required includes:

1. A specially constructed 1/12 H. P. motor to drive the wire brush at 12,000 r. p. m.
2. Circular stainless steel brushes, 2 and 4 mm. in width.
3. Specially mounted air blower.
4. Coarse nozzled bottles of ethyl chloride.
5. Propylene glycol prechilling packs.
6. Protective face masks and clothing.

Anesthesia is provided by ethyl chloride refrigeration which allows planing on a rigid bloodless skin surface. Because of the initial burning sensation of the ethyl chloride, the skin is prechilled with ice packs for twenty minutes. The ethyl chloride is blown onto the skin and evaporated with the aid of the blower, thus hastening the freezing process. Freezing to rigidity occurs in from twenty to thirty seconds. Areas up to three inches square will stay frozen long enough to permit satisfactory abrasion before thawing occurs. Planing can proceed for a short time after this occurs as the skin is still insensitive.

Planing is carried out by moving the rotating brush across the frozen skin in a motion similar to shaving with a safety razor. Moving the brush sidewise may result in grooving the skin. Since the frozen skin demonstrates adequately the depressions and elevations of the scars and pits, these serve as a guide to the depth of planing. Capillary bleeding which occurs is controlled by compression. By freezing and planing adjacent areas in succession, large areas, such as the face, can be treated at one operation.

Following the operation there is no post-operative pain, but there is a slight ooze of blood for about twenty minutes. The patient is therefore kept quiet with sterile gauze pads applied over the oozing surface. Bleeding then ceases, and a serous ooze follows. Fresh pads are reapplied, which the patient removes on returning home. No further dressings are used. In twenty-four to thirty-six hours the planed area has crust-

ed. This crust separates spontaneously in seven to ten days. The patient is instructed to keep the crust dry and to avoid the use of any ointments. There is no postoperative infection, if the patient does not meddle with the crust. Occasionally there is post-operative edema around the eyes or cheeks from the second to the fourth day. It subsides without incident or treatment and does not delay healing.

When the crust comes off, the regenerated skin appears pink and without the shiny, glazed appearance of scar tissue. For a few weeks the patient should avoid excessive sunlight, as there is not sufficient pigment to protect the skin from sunburn. During this phase a sun screening cream* is used. Occasionally a persistent erythema or slight hyperpigmentation will develop that may remain for several weeks.

Regeneration of epidermis is believed to come from the epidermal cells lining the follicles and from surrounding unplanned skin. As long as the abrasion is limited to the dermis and does not penetrate to the subcutis, regeneration will occur without scarring. Since the skin of the face is fairly thick (2 to 3 mm.), the depth of planing can be safely regulated. Also, because of the excellent blood supply of the face, there is very little chance of infection. Succeeding planing operations can be carried out at four to six week intervals if necessary.

CASES TREATED

The author has treated the following conditions by planing: acne scars and pits, cystic acne, acne keloidalis of the nape of the neck, traumatic and burn scars, port wine stains, nevi and a tattoo of the forearm.

Acne Scars and Pits

These respond well to the planing method and result in a smooth facial skin, free of pits and scars (figs. 1 and 2). Although from one to four planings may be necessary, depending on the depth of the pits and scars, none of my patients has required more than two planings to obtain the desired results. Since the sebaceous apparatus may be removed by the procedure, a few active acne papules do not preclude treatment. Planing in these areas will clear off the acne process as well as the pits and scars. Recurrence of active acne was seen in a mild form

*A-Fil, manufactured by Texas Pharmacal Company, has proved successful.



Fig. 1. Post-acne scars, before planing.



Fig. 2. Same patient as Fig. 1, after one planing.

in two cases, one month postoperatively. In both instances the papules were found adjacent to, but not in, the abraded area.

Cystic Acne

In the past, surgical incision has been performed to drain these cysts, resulting in scarring. By planing, the writer has evacuated the cysts without producing any scar.

Acne Keloidalis

One patient with keloidal acne and cysts on the nape of the neck was treated unsuccessfully by other methods for over two years. This patient responded excellently to planing, with healing of the process and no scarring.

Traumatic Scars

Scars resulting from lacerations of the face, especially the linear and jagged scars following auto accidents, respond very well to abrasion. The skin around the scar is planed, leaving a level area in which the scar is practically invisible. Two young women with scars resulting from auto accidents have been successfully treated with this method. Figures 3 and 4 show the re-



Fig. 3. Traumatic scars, left cheek, before planing.



Fig. 4. Same patient as Fig. 3, after one planing. Note that scar, left paranasal region is obliterated; others are shallower.

sult in the case of one of them. Planing can likewise be used to level off and mask scars resulting from operative incisions on the face or other areas.

Port Wine Stains (Nevus Flammeus, Capillary Hemangioma)

This purple discoloration, occupying the dermis, has heretofore not responded to known forms of treatment. Tattooing of flesh colored pigments over the stain has been recommended by Conway⁸ but this inadequately covers the mark in many cases. Several adults with port wine stains of the face and neck have been treated at my office by planing from one to four times. Results reveal that each successive planing removes more of the hemangioma, so that an estimated 75 to 95% of the stain can be obliterated (figs. 5 and 6). The resulting pink color is easily covered with ordinary cosmetics. A further report on planing of port wine stains will be the subject of another paper.

8. Conway, H.: Tattooing of Nevus Flammeus for Permanent Camouflage, J. A. M. A. 152: 666, 1953.



Fig. 5. Port wine stain, right cheek, before planing.



Fig. 6. Same patient as Fig. 5, after third planing.

Tattoos

In this series one patient with a tattoo on the forearm has been treated by this method. One planing removed completely the upper half of the tattoo, and obliterated 50% of the remaining design. Healing was complete in twelve days without scarring. Because of the depth of the blue pigment in the remainder of the tattoo, it was considered unsafe to remove any more of this tattoo.

Other Conditions Treated

These included several superficial benign nevi, wrinkles, an aberrant mongolian spot on the temple, burn scars, and smallpox scars. Good to excellent results followed a single planing of these conditions. Kurtin and others have also treated by dermal abrasion rhinophyma, lichenifications, adenoma sebaceum, chloasma, freckling, superficial epitheliomas and benign keratoses.

COMPLICATIONS

Infection

In sixty-four planings in this series only one mild infection occurred. This patient

had both cheeks and chin treated for acne scars. Food spilled on his chin on the third postoperative day. In twenty-four hours an impetiginous exudate developed over the crusted chin. This was treated by two daily injections of penicillin and the area healed without further complications.

Milia

Because the outlets of many of the sebaceous glands are stripped away, some of these may become blocked on healing producing milia or whiteheads. These are easily expressed. This condition has been seen in several patients.

Scarring

Scarring is a complication which should not develop. A scar will occur if the abrasion is carried beneath the level of the dermis exposing the yellow layer of the subcutis. This has not occurred in this series of cases. It is noteworthy that the reported cases of scarring followed dermal abrasion on the arm or forearm. Strakosch⁹ has observed scarring on the forearm after sandpapering of a tattoo mark. Burks⁵ reported two cases of scarring on the arms following planing for removal of tattoo marks. Too often the tattoo pigment is implanted deep in the dermis and sometimes even in the subcutis. Persistent abrasion to remove all the particles of tattoo pigment will therefore result in scarring in these areas. Planing is therefore not unqualifiedly recommended for the removal of tattoos.

DISCUSSION

The advantages of the planing technique over the older sandpapering method of dermal abrasion is evident. It may be performed in the office, obviating the expense of hospitalization for each treatment. No general anesthetic is needed. There is no pain, either during or after the operation. Because of the desirability of eschar formation, bandaging is not necessary nor desirable. The depth to which abrasion proceeds is visibly controlled.

It has been shown by histopathologic study that the epidermis is regenerated from the epithelial lining in the hair follicles and sebaceous glands remaining below the level of the abrasion as well as from

9. Strakosch, E. A.: Sandpaper Abrasion Treatment of Tattoos, Arch. Dermat. & Syph. 67: 53, 1953.

adjacent unplaned epidermis. The dermal layer of the facial skin is relatively thicker than that over most of the other parts of the body, making for a relatively safe procedure in this area. As long as the abrasion stays above the subcutaneous layers complete regeneration will take place without scarring. This was originally shown by Iverson⁴ in his earlier work on sandpapering. Infection on the face is not a problem postoperatively because of the good blood supply of this skin.

Rein believes that planing is superior to other methods of abrasion for removal of the acne scar and that improvement is considerable in most instances, even with a single planing. He states: "Improvement depends primarily on the depth of the abrasion and the timidity of the physician. Each successive abrasion should give additional

cosmetic improvement since more pits are stripped."⁷

SUMMARY

1. The technique of surgical planing is outlined.
2. Its successful use as a method of removal of scars and blemishes of the face due to trauma, acne, smallpox, port wine stains and other miscellaneous conditions is discussed.
3. The skin of the face will heal without clinical scarring provided the abrasion is limited to the dermis.
4. Abrasion is not unqualifiedly recommended as a treatment for removal of tattoos.
5. The treatment of port wine stains by this method is reported.

EPULIS TREATMENT BY X-RAY THERAPY COMBINED WITH ELECTROCOAGULATION

REPORT OF CASE

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References to the satisfactory treatment of giant cell tumors of bone by deep x-ray therapy can be found in the literature, but practically no mention is made of its use in the treatment of giant cell epulis. The following is a description of the technique used and a three year follow-up report of a case of giant cell epulis in which intra-oral x-ray therapy, combined with electrocoagulation, was successfully employed.

Mrs. J., age 54, gave a history of having had her remaining upper teeth extracted in August 1949. About a month or two later a dark red tumor mass appeared in the upper alveolus just to the right of the midline. Arrangements were made for a biopsy and surgical excision. In November 1949, under a local anesthetic, the operation was started but discontinued because of the poor condition of the patient. She had a very severe hypertension, with a history of several cerebral accidents, and during the operation bleeding became so copious that the procedure was discontinued after tissue was removed for biopsy.

The report of the biopsy and the micro-

scopic description were as follows: Hyperplastic epithelium with some down-growths overlies a very vascular area infiltrated with round cells and polymorphonuclear leucocytes. In some portions of the tumor are giant cells whose nuclei vary from five to twenty and resemble nuclei of the cells of the stroma. An occasional one of these cells resembles, to some extent, a Langerhans type cell, but by and large the nuclei occupy a central position. Some portion of the tumor is definitely granulation which is ascribed to irritation. The structure of the area containing the giant cells is identical to that which we are accustomed to call a giant cell epulis.

She was not seen by this author until December 1950, and by this time the tumor interfered with the closing of the mouth. It was 2.5 cm. in diameter, a dark red, very hard and bled very easily.

A lead shield, 2 mm. in thickness, was constructed to protect the surrounding tissue and permit direct treatment of the tumor through an intra-oral cone using the following factors: 200 K. V. P. at 20 ma., at 20 cm. using 0.5 mm. of copper and 1 mm.

aluminum filtration. A total of 3,550 r was given in 16 treatments over a period of 37 days. During the course of treatment high frequency electrocoagulation was used on numerous occasions on the tumor. This had a very beneficial effect in quickly reducing the size of the mass, thereby facilitating delivery of the last few treatments directly into the gingival tissue and the base of the tumor unobscured by a protruding mass.

During the next few months numerous spicules of bone were removed from the defect, but since that time her convalescence has been without incident as far as this tumor is concerned. She was observed a few days ago and there was no sign of recurrence of the tumor. Furthermore, the surrounding tissues are quite normal in texture and show no evidence of any radiation reaction.

MANDIBULAR IMPACTION AND SEVERE HEADACHE

A CASE REPORT

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Although the impaction of mandibular molars is a frequent occurrence, there is only a limited amount of information which indicates that such a condition is of etiologic significance in severe headaches. Since the following case is suggestive of such a relationship, it is being reported in some detail.

A male patient, age 23, reported for routine dental diagnosis and treatment on March 29, 1950. Dental radiographs revealed several large cavities in the upper and lower posterior teeth and an impacted lower right third molar. The patient had a history of severe headaches extending over a period of six months. These headaches had a characteristic pattern beginning in the anterior section of the right temporal region and spreading posteriorly toward the occiput. Although the pain was fairly constant, it increased in intensity approximately every third day becoming so severe as to necessitate medication with morphine or codeine. Further questioning revealed that the patient had been seen by a considerable number of physicians but they had not been able to relieve his headaches. A consultation with a neurologist had eliminated the possibility of a brain tumor.

Examination of the lower right third molar area disclosed a deep pocket between a horizontally impacted third molar and the distal surface of the second molar (see fig. 1a). Because of the existence of a chronic infection in the pocket, the patient was advised to have the impacted tooth removed. He was not encouraged to believe that the removal of the third molar would alleviate his headaches. After completion of the restorative work, the third molar was removed



Fig. 1a

under mandibular block anesthesia. Because of its close proximity to the second molar, the coronal and root portions of the third molar were sectioned. This permitted the crown and root fragments to be removed individually. Consequently, the amount of trauma that resulted from the procedure was minimal. Immediately after the tooth was removed, the patient remarked: "My headache is gone." Recovery was uneventful. Subsequent bone healing may be seen in the postoperative x-ray (see fig. 1b).



Fig. 1b

Because of the unusual outcome of the case every effort has been made to continue contact with the patient. Our last visit with him was on December 29, 1953. At that time he reported that since the removal of the impaction he had not experienced the headaches.

It is our opinion that the sequence observed in this instance can best be explained on the basis of referred pain. This has been adequately described by Wolff and Wolf¹ as pain that may occur in addition to or in the absence of true visceral and deep somatic pain. It is experienced at a site other than that of stimulation but in tissues supplied by the same or adjacent neural segments. It seems probable that the site of stimulation in this case was the inferior alveolar section of the mandibular division of the trigeminal nerve and that the site of

reference was the area supplied by the auriculotemporal branch of the mandibular division of the trigeminal nerve. According to Sicher² the auriculotemporal nerve separates from the trunk of the third division immediately below the base of the skull and turns almost directly backward. One branch bends sharply upward and spreads out in a fan-like fashion supplying the temporal region. Obviously, this distribution would be consistent with the patient's description of a pain beginning in the anterior portion of the temporal region and radiating backward over the side of the head.

1320 Empire Building.

1. Wolff, Harold G., and Wolf, Stewart: Pain, ed. 1, Springfield, Ill., Charles C. Thomas, 1951, p. 31.

2. Sicher, Harry: Oral Anatomy, ed. 2, St. Louis, Mo., C. V. Mosby Company, 1952, p. 367.

FATAL AGRANULOCYTOSIS FOLLOWING PHENYL-BUTAZONE (BUTAZOLIDIN) THERAPY

REPORT OF CASE WITH AUTOPSY FINDINGS

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INTRODUCTION

In his review of the world medical literature up to August 1953 Gsell¹ found twenty-nine reported cases of agranulocytosis²⁻²⁵

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1. Gsell, O.: Agranulocytosis Following Butazolidin, in press: The International Record of Medicine and General Practice Clinics.

(Bibliography of collected cases of agranulocytosis following phenylbutazone (Butazolidin) therapy as compiled by Gsell 2-25.)

2. Crowther and Elgood: Lancet, 263: 829, 1952.

3. Jarvis: Lancet, 263: 830, 1952.

4. Stifel and Burnheimer: J. A. M. A. 151: 555, 1953.

5. Werblow and Neber: J. A. M. A. 151: 1286, 1953.

6. Etess & Jacobson: J. A. M. A. 151: 639, 1953.

7. Bershof and Oxman: J. A. M. A. 151: 557, 1953.

8. Hinz et al.: J. A. M. A. 151: 38, 1953.

9. Steinberg et al.: J. A. M. A. 152: 33, 1953.

10. Kuzell et al.: Ann. Rheumat. Dis. 12, in press 1953. 4 cases.

following the use of phenylbutazone (Butazolidin) with eight deaths. Five of these deaths were associated with pneumonia and one with a bleeding peptic ulcer. In the remaining two cases exact details were not given. A bibliography of these collected

11. Kiely and Stickney: Proc. Staff Meet. Mayo Clin. 28: 341, 1953.
12. Breen and Edmond: Brit. M. J. 1: 991, 1953.
13. Newns: Brit. M. J. 1: 991, 1953.
14. Leonard: Brit. M. J. 1: 1311, 1953.
15. Nassim and Pilkington: Brit. M. J. 1: 1310, 1953.
16. Dilling: Lancet 264: 1230, 1953.
17. Kersley and Mandel: Lancet 264: 1046, 1953.
18. Proctor and Evans: Lancet 264: 1047, 1953. 2 cases.
19. Brandwein: New York State J. Med. 53: 1577, 1953.
20. Kaplan: Bull. Dade County 23: 463, 1953.
21. Loxton et al.: Lancet 263: 682, 1952.
22. Medico-Legal: Brit. M. J. 11: 1427, 1952.
23. Rice: Lancet 264: 192, 1953.
24. Engleman: Ann. Rheumat. Dis. 12: in press, 1953. Two cases.
25. Hollander: Ann. Rheumat. Dis. 11: 300, 1952.

cases as compiled by Gsell appear as footnotes on the foregoing page. In addition, Johnson-Engleman²⁶ et al. recently reported observing agranulocytosis in two patients after treatment of rheumatoid arthritis with phenylbutazone. One of these patients died after perforation of the gallbladder coincident with agranulocytosis.

In the present paper I wish to report an additional case of agranulocytosis following the use of Butazolidin resulting in the death of the patient. Permission for an autopsy was obtained and the finding of primary interest, in addition to the marked depression of the myeloid elements of the bone marrow, was the presence of large areas of recent hemorrhage in both adrenal glands.

CASE REPORT

History

A 57-year-old, married, white male lumber checker was admitted on 7-13-53 to the Veterans Administration Hospital, Montgomery, Alabama, in an acutely toxic state, with sore throat, difficulty in swallowing and high fever. History as given by the patient's wife revealed that he had always been in good health until January 1953. At that time he had begun complaining of pain in the lower back associated with some fever. He was taken to a local hospital where he was diagnosed as having undulant fever, despite several negative tests for this disease. He stayed in the hospital for twenty-one days, receiving treatment with aureomycin, streptomycin and penicillin. At the time of discharge from the hospital he was still somewhat febrile, and upon returning home he remained in bed for an additional week and continued taking aureomycin. Since then he had not been entirely well but had tried to work. On 5-15-53, about two months prior to admission, he had consulted his local physician because of recurrent pain and swelling in various joints. This condition was diagnosed as arthritis and he was given "some new arthritis medicine in the form of yellow tablets." This local physician, interviewed later by the author, confirmed what had already been suspected, namely, that these "yellow tablets" were phenylbutazone. He stated that

he had prescribed this medication in a dosage of one 200 mg. tablet, three times a day after meals, and had given the patient only one such prescription for twenty tablets. At a subsequent visit, eight days later, he had discontinued this drug because he was "somewhat afraid to use it." Later, however, he discovered that the patient had had the prescription refilled on at least two occasions without a doctor's authorization. No blood counts were done at the time of either the first or second visit. Subsequently, the patient was seen by him during two additional office visits, on 6-6-53 and 6-20-53, for the treatment of the arthritis, arterial hypertension and constipation. The medications prescribed were Theominal (theobromine and luminal) for arterial hypertension, Pabalate (para-aminobenzoic acid and sodium salicylate) for the arthritis, and Cholmodin (desoxycholic acid and extract of aloes) for constipation. There was no evidence of the patient having received any other medication. A blood count done on 6-20-53 revealed the following results: hemoglobin 13 grams, red cell count 4 million, white count 6,600. No differential white blood count was done. No other blood counts were done prior to admission to the Veterans Administration Hospital. Five days before admission to the hospital, patient again developed an elevated temperature but continued to work until noon of the following day when he became too sick to continue. The following day he began to complain of sore throat and difficulty in swallowing and his voice had become somewhat nasal in quality. He was again seen by his physician who found him to be acutely ill with a temperature of 103.4 degrees. The throat was reported as being red and injected, as were also the tonsils, but apparently no membrane was seen. Patient also complained of severe pain in the lower back, both legs and the back of the neck. No medication was given. The local physician recommended immediate hospitalization at the Veterans Administration Hospital, Montgomery, Alabama. However, the patient was not brought to the hospital until three days later when he was promptly admitted.

The past history was essentially not remarkable. There was no history of any drugs having been taken aside from laxatives.

Family history was non-contributory.

26. Johnson, Harold P., Jr.; Engleman, Ephraim, P.; Forsham, Peter H.; Krupp, Marcus, A.; Green, Thomas W., and Goldfrien, Alan: Effects of Phenylbutazone in Gout, *New England J. Med.* 250: 665-670, April 22, 1954.

Physical Examination

Examination revealed an acutely ill, white male, who appeared very toxic. Rectal temperature was 104.4 degrees, pulse 128, respirations 28, blood pressure 102/60. The throat was edematous and inflamed, with a dirty gray, necrotic membrane over the left tonsil. This could be removed only with difficulty. Both tonsils were enlarged, with the left side showing major involvement. The submaxillary glands were palpable but no tonsillar or other adenopathy could be made out. The heart showed no apparent enlargement but there was a marked tachycardia with a rate of 150 to 160 beats per minute. There was normal sinus rhythm. No significant murmurs were heard. Sounds were loud and active. Lungs were clear and resonant. The abdomen was somewhat distended with some upper abdominal tenderness. No definite organs could be palpated. The rest of the examination was essentially not noteworthy.

Laboratory Data

White blood count 125, lymphocytes 100%, red blood count 3.87 million, hemoglobin 10.5 grams or 68%, hematocrit 24, uncorrected sedimentation rate 46, corrected sedimentation rate 8. Urine was smoky, amber in color, showing acid reaction, a specific gravity of 1.012, albumin three plus, quantitative sugar 0.6%, acetone negative, microscopic—many granular casts, few white blood cells, and eight to ten red blood cells per high power field. Throat smear was negative for diphtheria bacilli, as was also a culture reported the following morning. Electrocardiogram showed a marked tachycardia, with a rate of 150 per minute, but no other significant abnormality was noted.

Course in the Hospital

Patient was extremely ill on admission, toxic and somewhat disoriented. Clinically, his throat presented the appearance of an acute diphtheritic process and the nasal voice was suggestive of nasopharyngeal involvement. It was thought at the time that the marked tachycardia might be due to a diphtheritic myocarditis. The EENT specialist who saw him in consultation concurred in the opinion that the membrane in the throat appeared diphtheritic in character. Because of this clinical picture the patient was immediately given 60,000 units of

diphtheria antitoxin after he had been skin tested for sensitivity and found to be negative. The history of the patient's having taken "yellow tablets" for his arthritis was not elicited until later the same day from his wife, and the possibility of agranulocytic angina was suspected. The reported white count of 125 cells with no granulocytes being seen amply confirmed this diagnosis. A repeat confirmatory white blood count was done immediately and reported as 150 cells, all lymphocytes. The wife stated that the patient had been taking these "yellow tablets" for several months. She stated, further, that this medicine had done more good than any other in the treatment of his arthritis.

As soon as the diagnosis of agranulocytosis was made, patient was put on 300,000 units of penicillin subcutaneously, every three hours, and a blood transfusion was started. However, his course was progressively and rapidly downhill. He became more toxic and totally irrational. Tachycardia persisted with a rate between 150 and 160 beats per minute, and his temperature remained between 102 and 105 degrees rectally. Despite massive penicillin therapy, blood transfusions and oxygen, patient went into a state of profound shock and expired on the day after admission.

AUTOPSY FINDINGS

General Description

The body was that of a well developed, fairly well nourished, fifty-eight year old white male which measured five feet, eleven inches in length and weighed an estimated one hundred seventy pounds. The skin had a slightly yellow tint which did not appear to be a true icterus. Rigor mortis was complete and postmortem lividity was posterior and dependent. The hair was gray-brown and of normal distribution. The pupils were round and equal, measuring 5 mm. in diameter. The external ears, nose and mouth revealed nothing unusual except that the mouth contained brownish liquid material. Palpation of the neck revealed no notable adenopathy and no enlargement of the thyroid. The thorax and abdomen were symmetrical but showed evidence of weight loss. The external genitalia were of the

The autopsy was performed by Dr. Russell C. Henry, Pathologist, formerly Chief, Laboratory Services, Veterans Administration Hospital, Montgomery, Alabama.

adult male type. The extremities were thin but not otherwise remarkable.

Primary Incision

The body was opened by the usual Y-shaped incision and the subcutaneous fat was found to be decreased in amount. The sternal plate was removed and the organs were inspected in situ. They appeared to lie in their usual relationships. Both pleural cavities contained about 100 cubic centimeters of clear fluid but there were no notable adhesions. The pericardial cavity contained about fifty cubic centimeters but no adhesions. The peritoneal cavity was not unusual. The organs were then removed singly and examined in detail.

Lungs

The right lung weighed 900 grams; the left lung weighed 840 grams. The surfaces were smooth; on section there was marked congestion, atelectasis and edema throughout, but no evidence of pneumonia. The bronchial mucosa was reddened; the lumina contained brownish, frothy material. The pulmonary arteries were patent.

Heart

The heart weighed 530 grams and the apex-base diameter was 10.5 centimeters; the transverse diameter was 12 centimeters. The heart was opened along the course of the blood and the following measurements were found: Tricuspid valve 12.5 centimeters, pulmonic valve 8 centimeters, mitral valve 9 centimeters, aortic valve 7.5 centimeters, right ventricular wall 0.2 centimeters, left ventricular wall 1.5 centimeters. The myocardium was firm, reddish brown and showed no evidence of infarction. The endocardium and valves were not remarkable. Serial sections through the coronary arteries showed no evidence of occlusion.

Aorta

The aorta showed moderate sclerosis but no calcification or ulceration.

Spleen

The spleen weighed 300 grams and was markedly congested.

Liver

The liver weighed 2750 grams and had rounded margins and a smooth surface. On section there was marked passive congestion.

Gallbladder

The gallbladder contained about 50 cubic centimeters of bile but no calculi.

Pancreas

The pancreas weighed 180 grams and on section showed fairly marked fibrosis but no evidence of neoplasia.

Adrenals

The right adrenal gland weighed 25 grams and was almost completely destroyed by a recent unorganized hemorrhage. The left adrenal gland weighed 18 grams and was also severely damaged by hemorrhage, though the destruction was less extensive than on the right.

Gastrointestinal Tract

The gastrointestinal tract was inspected from the esophagus to the rectum and was grossly not unusual.

Kidneys

Each kidney weighed 220 grams and was not worthy of note except for marked passive congestion. The bladder was empty and showed some reddening of the mucosa.

Prostate

The prostate weighed 60 grams and showed a recent hemorrhagic infarct involving the left lobe; otherwise the gland showed fibrosis and hyperplasia.

Neck

The organs of the neck were removed en masse including the tongue and pharyngeal structures. Examination of the thyroid showed no gross enlargement and only small adenomatous areas. The parathyroid glands were identified and were normal in size and location. There was no notable lymphadenopathy. Examination of the pharynx showed marked reddening of the mucosa, including that of the soft palate. Both tonsils were notably enlarged, especially the left, and both showed ulceration which was covered by an adherent, necrotic, yellow-gray membrane. Section showed the ulceration to extend deeply into the tonsillar tissue.

Head

Permission for examination of the brain was not obtained.

Microscopic

Lungs

Sections from both lungs showed marked congestion and edema with no notable inflammatory reaction. Many of the alveoli contained amorphous blue staining material which may have represented aspirated gastric contents.

Heart

Sections from the myocardium showed generalized fibrosis but no evidence of necrosis or inflammatory change.

Coronary Arteries

The coronary arteries showed moderate intimal thickening of the wall with atherosomatous plaques but no evidence of calcification.

Spleen

There was very marked congestion of the sinusoids and a marked increase in fibrous tissue. One area contained organized fibrous tissue that suggested an old infarct.

Liver

The sinusoids were markedly congested with compression of the liver cells. There was also congestion of the veins, but there was no evidence of increase in fibrous tissue.

Pancreas

No notable changes.

Adrenals

Sections from both adrenals showed large areas of recent unorganized hemorrhage which involved both the cortex and the medulla. The cortices also showed marked intercellular edema with separation of the cell cords, many of which were also fragmented. No bacteria were seen in routine H and E stain.

Kidneys

There was very marked congestion of the vessels with no other notable changes.

Bladder

There was submucosal edema and infiltration by chronic inflammatory cells.

Prostate

There was diffuse and focal infiltration by chronic inflammatory cells. One area

showed shadowy eosinophilic outlines of tissue structures which suggested an infarct.

Tonsils

Sections from the left tonsil showed an area of ulceration on the surface which was covered by fibrin cell debris and clumps of bacteria, both streptococci and staphylococci. The tonsillar tissue showed follicular hyperplasia.

Bone Marrow

Numerous sections of bone marrow showed a very hypocellular marrow, most of the elements being replaced by fat. The erythropoietic elements appeared to be present in normal numbers. The granulocytic series appeared in very, very scanty numbers. Most of these were fairly mature, and were in the metamyelocyte and stab phase. Megakaryocytes were present in adequate numbers.

Diagnosis

1. Massive bilateral adrenal hemorrhage.
2. Profound depression of granulocytic series in bone marrow.
3. Septicemia, presumptive.
4. Acute passive congestion of viscera.
5. Ulcerative tonsillitis.
6. Chronic cystitis.
7. Chronic prostatitis.
8. Infarction of prostate.

Correlation

The patient died of shock and circulatory collapse, associated with massive hemorrhage into both adrenals, secondary to agranulocytosis and overwhelming infection.

DISCUSSION

As far as could be determined, this patient had received at least sixty 200 mg. tablets of phenylbutazone during a period of about three weeks. It is likely that he had actually ingested far more than this since, according to his wife, he had been taking this medication for two months. His local physician had prescribed a starting dose of 600 mg. a day. Ordinarily it is recommended that this dose be decreased as much as possible, down to 400, or 200, or even 100 mg. daily. Since, however, this patient had had the prescription refilled without the knowledge of his physician, he had apparently continued taking 600 mg. daily. The total

amount of medication consumed was at least 12 grams and very likely much higher.

The history reveals that he had received, in addition to the phenylbutazone, the following medications: penicillin, streptomycin, aureomycin, phenobarbital, theobromine, extract of aloes, desoxycholic acid, para-aminobenzoic acid and sodium salicylate. The first three medications were taken about five or six months before the onset of the bone marrow depression and could hardly be implicated as a cause. Of the other medications mentioned, the barbiturates have been reported at times as being the cause of agranulocytosis.²⁷

Judging, however, from the small number of reports compared with the wide use of these drugs, it is evident that these substances only very rarely are the cause. I am not aware that any of the remaining drugs on the list of those taken have ever been reported as causing this condition. Therefore, I feel that it would be fair to assume that the phenylbutazone was the cause of the agranulocytosis in this case.

At the time that he arrived at the hospital the patient's condition was so far advanced that he was already beyond any response to treatment. His white blood count of 125 cells, all lymphocytes, is lower than any of those reported in the other cases. However, it does not establish a record since Wintrobe states that counts as low as 50 have been recorded.²⁸

One point of interest was the marked clinical resemblance of this case to diphtheria. The membrane in the throat was very firmly attached and could not be readily removed. This is more typical of a diphtheritic membrane than that which is found in agranulocytic angina, which usually can be easily removed. As mentioned, the marked nasal quality of the voice suggested nasopharyngeal diphtheria and the very rapid heart rate pointed to a possible diphtheritic myocarditis. Although the diagnosis of diphtheria was not confirmed, it is felt that the clinical picture justified the prompt administration of diphtheria antitoxin. It is to be regretted that the patient was not

brought immediately to the hospital at the time when it was recommended by the local physician, since it is possible that earlier treatment might have resulted in saving the patient's life. While, unfortunately, no blood cultures were done, the clinical picture was indeed that of an overwhelming septicemia with associated toxicity and prostration. The sudden onset of fatal shock probably took place as a result of the massive hemorrhage into both adrenals. This latter finding at autopsy was not totally unexpected in this situation since, in addition to the usual Waterhouse-Friderichsen syndrome reported in children with meningococcus septicemia, there have been reports of the same finding in adults with overwhelming septicemia due to organisms other than the meningococcus.

The present case of agranulocytosis and death following the use of phenylbutazone brings the total up to thirty-two cases of agranulocytosis and ten deaths reported following the use of this drug. This is the first case in which large areas of hemorrhage into both adrenals were found at autopsy. In spite of the marked tachycardia found during life there was no evidence of myocarditis as described by Steinberg et al. in their case report.

SUMMARY AND CONCLUSIONS

A case is presented in which agranulocytosis followed the use of phenylbutazone. The exact amount ingested could not be determined because the patient was not under my observation during the time he was taking the drug and, furthermore, he had had the prescription refilled a number of times without the knowledge of his local physician. He had consumed at least 12 grams and very likely more. Autopsy findings are recorded, of which the most outstanding were the marked depression of the myeloid elements in the bone marrow and the presence of large areas of hemorrhage in both adrenals. To my knowledge this is the thirty-second recorded case of agranulocytosis following the use of phenylbutazone and the tenth death due to this complication. It was also the first case in which at autopsy large areas of hemorrhage were found in both adrenals.

27. Wintrobe, Maxwell M.: Clinical Hematology, ed. 3, Philadelphia, Lea and Febiger, 1951, page 968.

28. Wintrobe, Maxwell M.: Clinical Hematology, ed. 3, Philadelphia, Lea and Febiger, 1951, page 972.

NEXT MEETING OF THE ASSOCIATION MONTGOMERY APRIL 21, 22, 23, 1955
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JOURNAL EXCERPTS

Intestinal Obstruction—The symptom complex of intestinal obstruction, when considered with the history relative to the problem offered by the patient, at once serves to point out the pathophysiological processes at play and confirm the clinical diagnosis. Laboratory and roentgenologic aids of course assist but considered alone are unreliable and may trap the unwary and lead him into errors of procedure and diagnosis. Pain of rhythmic nature due to distention of the gut as a peristaltic wave ineffectually attempts to force intestinal contents past the obstructed point is a constant and important finding. When such a pain, defined by the patient as a cramp, is associated at its height by high pitched tinkling intestinal noises often audible without stethoscope, one must consider the diagnosis of acute intestinal obstruction unless definite evidence to the contrary is present. Reverse peristalsis makes itself prominent by the vomiting which in a high obstruction may be severe and in a low or large bowel obstruction late or absent. Bowel content during the course of three to four days in the obstructed gut decomposes by bacterial action to produce the so-called fecal type of vomit. Dependent on the amount of vomiting, which is usually high in high small bowel obstructions and low in low obstructions, dehydration due to large volumes of water being lost and electrolyte disturbance consequent to loss of sodium and chloride develop. Usually chloride losses predominate over loss of base and an alkalosis is the net result. It must be borne in mind that these latter changes diminish in intensity as one nears the ileocecal valve and colon. Shock may be a part of the clinical picture when strangulation of bowel favors loss of large amounts of blood into the damaged area. Obstructions low in the bowel allow for greater intestinal distention simply because more bowel above the lesion exists to be distended. When inflammatory peritoneal responses to dead or dying bowel begin, spasm of abdominal musculature and tendencies to palpitation appear. Under these circumstances aspiration of the peritoneal cavity is of great aid for recovery of blood-tinged fluid strongly indicates the presence of a strangulating obstruction. When failure to pass gas or feces is associated with the foregoing evidence, especially if one demonstrates the presence of an abdominal scar, preparation for surgical treatment of the individual should begin.

Rapid estimation of the state of hydration and electrolyte balance can best be made on the clinical evidence available. In marked dehydration we know that from 5 to 7 per cent of the body weight has been lost in the form of water. We also know that vomitus contains sodium and chloride in proportion of about one-half that of plasma. Therefore, dilute salt solution 0.45 per cent in 2½ per cent glucose may be administered by vein. One-half of the total calculated deficit may be given in the first hour safely and the re-

mainder during surgery and the immediate post-operative period. One's judgment should suffice to estimate the degree of dehydration to a degree which is accurate enough to begin therapy of dehydration and salt loss intelligently.—Moos, *J. Arkansas M. Soc.*, Sept. '54.

What Brings Matters Before The Grievance Committee?—It has been pointed out by many persons that what the public wants today when it longs for the old "horse and buggy doctor" is not the type of medicine he practiced but his manner of practice. The familiar plaint is that the old family doctor understood his patients, gave them unstinted time, explained as best he could what the medical problem was, and, in general, treated them as friends. Many wise physicians have made the statement that, by and large, a less efficient physician with a close rapport with his patients can do them more good than a cold but well-trained clinician. To restate an old truism, there is both a science and an art to the practice of medicine, and the well-rounded physician should employ both.

Today the Grievance Committee feels it is seeing a new trend in the complaints brought before it. In some cases, when a physician turns over an account for collection, the patient retaliates by bringing suit for malpractice. This could be a lever used by unscrupulous persons for getting bills reduced, although the Committee has no intention now, and never has had, of recommending the reduction of bills that are not excessive. The Committee does feel, however, that some physicians should make more of a personal effort, through their own offices, to effect payment. Probably a reasonable amount of time should be spent on this type of collection effort before the account is turned over to a professional collection agency.

We doctors are being taught to be up-to-date in our business methods; we are told that monthly statements should be sent to all patients; and we are urged not to delay too long before turning over uncollected accounts. It may be that in trying to be businesslike, we have erred by seeming too anxious about collections.

It is true that the merchant expects payment on time; the landlord expects his rent in advance. It is true that when we care for a patient and help him with our medical knowledge, we should be paid for the service we have given. For many generations, however, our profession has given unstintingly of its knowledge and has put little stress on the remuneration angle. Maybe we are being too abrupt about the transition. Maybe we should not try to become the most efficient businessmen overnight, but should proceed more slowly with pushing collections.

There will always be a small per cent of persons who won't pay their medical bills . . . —Editorial, *J. Iowa M. Soc.*, September '54.

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DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

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THE MONTH IN WASHINGTON

When the 84th Congress convenes in January the Eisenhower Administration will press for passage of at least two bills that failed to get through last session, reinsurance and a new program of medical care for military dependents. The former was decisively defeated in the House. The latter did not reach a vote in either chamber.

In a radio address summing up his Administration's legislative achievements Mr. Eisenhower confirmed that he was prepared to renew the fight next session to have the federal government set up a system for reinsuring health insurance programs. He declared: "Health reinsurance we are going to put before Congress again because we must have a means open to every American family so that they can insure themselves cheaply against the possibility of catastrophe in the medical line."

There have been no indications how far the Administration would go in amending the reinsurance bill to satisfy its critics. It is possible also that if all objectionable features were removed there would be little left of the bill.

At Senate and House hearings, reinsurance was roundly denounced by most witnesses, for a variety of reasons. The position of the American Medical Association was that reinsurance wasn't needed because private funds are available for the limited amount of reinsurance that could be used, and that, in addition, the program projected the federal government too far in the direction of control of medical care.

Later in the session Mr. Eisenhower himself and Mrs. Hobby made every effort to win over critics of reinsurance, and to force the bill through Congress. In the light of these efforts—including a nationwide radio appeal by Mrs. Hobby—the defeat of the bill in the House of Representatives was regarded as one of the most surprising suffered by the Administration on any domestic legislation.

Currently Secretary Hobby and Chairman Charles Wolverton of the House Interstate and Foreign Commerce Committee are attempting to bring together all parties interested in health legislation to see if a compromise can be worked out on reinsurance.

Although the dependent medical care bill wasn't passed, this fact was not in any way regarded as a defeat for Mr. Eisenhower.

The bill was offered in the Senate in plenty of time for action, but the introduction of the House bill was held up until Defense Department could estimate the first year's cost, eventually set at \$67 million. At any rate, neither Senate nor House Armed Services Committee held hearings on the measure.

In another statement Mr. Eisenhower made it clear that he expects the next Congress to do something about improving and making more uniform the system of medical care for servicemen's families. Congress, he said, "must eventually meet certain imperative needs of the members of the armed forces." He explained that servicemen now "lack adequate medical care for dependents. . . . It is most important that these needs of the armed forces personnel serving their country often in remote corners of the world engage our serious consideration."

Although the American Medical Association has not had an opportunity to testify on the dependent care plan before Congressional committees, it has made its views known to the Defense Department. In general the AMA is not opposed to Defense Department proposals that a more uniform system be worked out, and that the federal government bear most of the cost. On one important point, however, the recommendations of the department and of the Association are in direct conflict: The department would have the military medical departments themselves furnish dependent medical care wherever they could, with service families going to private physicians and private hospitals only where the uniformed physicians couldn't handle them. The Association, on the other hand, proposes that dependents be cared for by the military medical departments only where civilian medical facilities are inadequate to furnish proper care.

Federal officials, meanwhile, are busy preparing to put into effect the new health bills passed by Congress. Basic state allotment percentages have been worked out for the new Hill-Burton program (for facilities other than complete hospitals) and for the expanded vocational rehabilitation program. The Internal Revenue Bureau is about to issue detailed instructions to taxpayers regarding changes in medical expense deductions and other benefits in the new tax law.

THE ST. LOUIS MEETING SOUTHERN MEDICAL ASSOCIATION

November 8-11

(Reprinted from *South. M. J.*, September '54.)

As summer has ended and school begun, arrangements for the forty-eighth annual meeting of the Southern Medical Association are about complete. The Association has met in St. Louis four times previously, 1935, 1941, 1944 and 1950. The meeting begins with a general public session on Monday forenoon, November 8. Between that time and Thursday noon, November 11, forty-eight half-day sessions will be held. During Southern Medical meetings, physicians may best associate with men whose practice is like their own, and with men in each of the other divisions or limitations of clinical work. The viewpoint may be broadened in any direction which one chooses. This geographical division of medicine, the Southern Medical, is large enough to attract learned men for complete coverage of the year's progress, and yet so small or so subdivided as not to bore the personal friendliness and appreciation of individual effort which are more necessary in medical education than any textbook or physical facility.

St. Louis in 1954 has many claims to fame. There are its two great medical schools, known because of the faculties which make them.

The well known and popular president of the Southern Medical Association, Dr. Alphonse McMahon, heads the meeting in his own home town. Dr. R. O. Muether, president of the St. Louis Medical Society, has appointed Dr. Daniel L. Sexton as general chairman of the Committee on Arrangements. The local committees are active and capable and have been enthusiastic in their preparation for a welcome to the meeting.

St. Louis itself is a huge city with more than its quota of handsome office buildings, public buildings and residential areas. Its beautiful Kiel Municipal Auditorium, headquarters for the meeting, is known of old to the Association. The St. Louis Medical Society itself owns a handsome building whose auditorium seats 700 persons; its library has more than 30,000 volumes and 335 periodicals. By St. Louis' art museum, its botanical gardens, its symphony orchestra and many other cultural features, it is known far beyond the Southern area.

The city has many claims to fame in medicine besides the modern discovery of the

estrogenic hormone, and of the first radio-paque material for examination of the gall-bladder. St. Louis was the home of William Beaumont, early student of digestive function, and discoverer of hydrochloric acid in the human stomach. The Missouri State Medical Association is one of the oldest in America. Its organization meeting was held in the First Presbyterian Church in St. Louis in November, 1850. The centennial was celebrated four years ago, when many interesting reproductions were published in Missouri papers of early operating room scenes and medical activities.

At the first state meeting, in 1850, steps were taken to secure the passage in the legislature of a sound medical practice act. It included establishment of a uniform system of registration of births, marriages, and deaths; control and inspection of drugs, and improvement of medical education.

These one hundred and four years of organization and of conscious pulling together provide a fine background for further education and entertainment of a great meeting in November.

Hotel accommodations in St. Louis are of the best. Requests for room reservations for the meeting should be sent to the Housing Bureau, Southern Medical Association, 911 Locust Street, Room 406, St. Louis 1, Missouri.

ATLANTIC CITY MEETING AMERICAN COLLEGE OF SURGEONS

November 15-19

The largest and most widely instructive meeting of surgeons in the world, the 40th annual Clinical Congress of the American College of Surgeons, will be held in Atlantic City, New Jersey, November 15 to 19. More than 10,000 Fellows of the College and their guests from all over the world will gather to fulfill the purposes of this Congress: to discover, to inform and to learn. This post-graduate education meeting will present recent surgical developments through a wide variety of programs, including panel discussions, symposia, surgical forums, motion pictures, color television and exhibits. Dr. Charles deT. Shivers, Atlantic City, is Chairman of the Atlantic City Advisory Committee on Arrangements.

Dr. Frank Glenn, New York, current President of the American College of Surgeons, will preside at the opening evening session, at which Dr. Alan Gregg, New York, and Dr. Robert H. Kennedy, New York, will be guest speakers. On the final evening Dr. Alfred Blalock, Baltimore, will be installed as President for the coming year.

Dr. Evarts A. Graham of St. Louis is Chairman of the Board of Regents and Dr. Paul R. Hawley of Chicago is the Director.

Pancreatic Pain—The treatment of pancreatitis should be directed toward the ablation or removal of any contributing disease. When pancreatitis is advanced and is producing severe pain, we must direct our attention to relief of the patient's symptoms. The use of drugs for relief of pain must be minimized because of the danger of drug addiction. Continuous epidural anesthesia sometimes is followed by relief of pain for varying lengths of time. Splanchnic block often alleviates acute attacks and may benefit pancreatic pain of a more chronic nature. When these measures fail, operative procedures which interrupt the nervous pathways from the pancreas may be attempted. This is difficult to accomplish because of the multiplicity of nervous pathways. Sensory fibers may extend through the sympathetic chain, the splanchnic nerves, the vagi, the intercostal nerves and numerous visceral fibers. As it is impossible to section all the nervous pathways to the pancreas, the simpler procedures are used first and the more radical ones reserved for those patients who fail to respond. As most of the pancreas lies to the left of the midline, left sided operations usually are performed first. Limited lumbodorsal sympathectomy and splanchnectomy occasionally will remove pancreatic pain. If operation on the left is followed by a recurrence of pain, the same procedure can be carried out on the right. However, we have done this and had the patient again have recurrence of pain. We then attempt a more radical procedure through a transpleural approach removing the sympathetic chain all the way from the fourth thoracic to and including the first lumbar ganglia and the splanchnic nerves. A vagotomy may be performed at the same operation. This is drastic surgery to relieve pain but we are dealing with a drastic condition for which we have no satisfactory answer at the present time. It may be necessary to perform this operation bilaterally if the first side does not give relief. Another nerve operation that we have carried out a few times but which does not have too much promise is the subdiaphragmatic division of the splanchnic nerves. We would not attempt this procedure were we not planning to explore the abdomen to determine whether or not some disease exists which is affecting the pancreas.—*Puestow, J. Louisiana State M. Soc., Sept. '54.*

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

WHAT IS THE I. L. O.?

W. A. Dozier, Jr.

Director of Public Relations

This article and several following ones will deal with the International Labor Organization, the I. L. O. as it is commonly called. This article will attempt only to give some background material.

Earlier references have been made to the I. L. O. in this column and in P R Notes. Earlier references have been made also to the Bricker Amendment which was rejected by the 83rd Congress. Socialism—creeping or galloping—communism, and the American form of government have all appeared before, but not always have these been tied together in one package. This and succeeding articles will do so, at least to a partial extent.

To be certain that difficulties do not arise to cloud the issue and defeat understanding, it is perhaps wise first to get a clear picture of just what the I. L. O. is and how it operates. Mr. William L. McGrath, President of The Williamson Heater Company, Cincinnati, Ohio, has just reported on the 37th International Labor Conference of the I. L. O. which was held in Geneva, Switzerland in June, 1954. Mr. McGrath was for four years one of the advisers to the United States Employer Delegate to the I. L. O., and this year he was the Employer Delegate.

In his report Mr. McGrath makes the following statement on the I. L. O. and its operation.

"The I. L. O. originated with the League of Nations, continued in existence after the abandonment of the League, and is now an agency of the United Nations. It is therefore an international body having an official standing with Governments the world over, including our own.

"It has a permanent office in Geneva, headed by a Director General and an ample staff, most of whom are sympathetic to socialistic ideas. They develop the documentary material regarding the agenda items presented to delegates at the Conference. The I. L. O. has a Governing Body which constitutes, you might say, the Board of Directors.

"At the Annual Conference each participating nation has four voting delegates; two representing Government, one representing Labor and one representing Employers.

"The delegates bring with them advisers who represent the delegates in Committee discussions of the subjects on the agenda. Including these advisers, the delegations at last June's meeting totaled some 600 people, with over sixty nations represented.

"With respect to most of the subjects on the agenda, the usual procedure is to lay before the Conference a proposed 'Resolution,' 'Recommendation,' or 'Convention,' in much the same way as a Bill is laid before members of our House of Representatives. These are then debated, amended, and (if they secure the required majority) 'passed.'

"Resolutions and Recommendations embody principles which the I. L. O. says should be made a part of the law or practice of each member country. But Conventions go even further. A Convention is a draft of a proposed international law. When a Convention is passed, each member country is supposed to submit it to its own treaty-ratifying authority. If ratified, the Convention then becomes a part of the law of the land and stands as an international treaty among the countries which ratify it.

"In its earlier years the I. L. O. devoted its efforts to matters dealing directly with Labor, and did excellent constructive work. Its objective was that of endeavoring to raise living standards of employees all over the world; helping to get the workers better working conditions, fuller recognition of their rights, etc.

"However, as State Socialism came into the ascendancy in Europe and the concept of the Planned Economy and the Welfare State gained broad political acceptance, the I. L. O. stepped beyond the Field of Labor proper into the field of Government itself; and under the pretext of 'helping the working man,' has put forward a whole series of proposals, which, if adopted and implemented in member countries, would of necessity force their Governments into a socialistic mold."

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

DELAY, INDIFFERENCE, NEGLECT

TRIPLE THREAT TO HEALTH

Contributed by

Nadine Pitts

Director

Division of Public Health Education

New and wonderful medical discoveries within the last decade are helping more each day to diminish the death-dealing power of many infections and diseases. The wonder drugs, penicillin and the antibiotics, as well as the wonder hormones ACTH and cortisone, have saved and prolonged life; and their usefulness is being demonstrated in every city and community in the United States. Undoubtedly, these and other miracles have bettered the state of the nation's health to an unprecedented degree. Moreover, many of these advances in medicine are being dispensed by many family physicians, and are within the reach of most everyone. And the wide publicity given the miracle discoveries, plus the intensification of public health education, makes it a surety that most of us are far from ignorant about the symptoms of various diseases and the medical know-how available to combat them.

Yet, with all this, there remains a big obstacle to attaining the highest degree of public health. That big obstacle is the by-product of some of man's thought processes. Those processes—or lack of them, as the case might be—which cause us to neglect, to procrastinate, to be indifferent. If not Public Health's Enemy No. 1, this triple threat is certainly high on the list of foes.

You may have heard the story about the old-time family physician who wrote "Indifference" in the space on the death certificate for listing the cause of death. In reality, the child had died of diphtheria. According to an Alabama public health official, Dr. Douglas L. Cannon, writing in the June 1953 issue of *Today's Health*, indifference might truthfully be listed as the cause

of practically every diphtheria death, as well as for most of those attributed to whooping cough, smallpox and typhoid fever. These illnesses still kill people, says Dr. Cannon, but only because the proper immunizing measures are not taken against them. In some aspects of health protection, the cost is admittedly often a troublesome deterrent. But, says Dr. Cannon, a parent whose child dies needlessly from a disease that can be prevented by immunization cannot salve his conscience with the reasoning that prevention would have been expensive. Rather, immunization is available in most if not all parts of the United States either entirely free or at only a slight cost. And, since doctors and public health agencies make immunization easy and convenient, there is no good reason why everyone should not avail himself of such protection.

An article with an intriguing title—"Don't Let Gossip Kill You"—in the July 1953 issue of *Today's Health* sheds some light on the reasoning involved in neglect and delay in obtaining needed medical attention. In clever style, Dr. Paul H. Fluck relates the story of "Mrs. Smith." The story goes like this:

"First there were three women chatting outside the supermarket—and then there were two. . . . 'Poor Mrs. Smith,' chanted the first woman. 'She's so thin,' echoed the second woman. 'I never saw her looking so bad before,' chimed the first woman. 'It almost makes you think that there's something the matter with her.' 'She's doctoring with that surgeon over in Brightville.' 'They say he's a cancer specialist!' 'Her mother died of cancer. She told me so herself.' 'What a shame. And she's so young, too.' By now it was cut and dried. Mrs. Smith, whoever she was, had cancer!"

And worst of all, says Dr. Fluck, Mrs. Smith would always have cancer. No matter what her doctor said, what she went to the hospital for, what her x-rays showed, she was doomed. The climax comes when Mrs. Smith's "real" friends go to her and tell her about the gossip that is making the rounds. But, no matter what Mrs. Smith says, it doesn't make any difference. If she denies having cancer, they think she's trying to be brave—or they think perhaps the doctor did not tell her all the facts.

Now, you may ask, what does all this gossip do to Mrs. Smith? It can make her stop going to the doctor. Or it can make her positive that she does have cancer and that her doctor won't tell her. It can make her put off an operation or delay treatment—or change, from the doctor who has spent perhaps a month working out a diagnosis and starting her on the road to recovery, to another doctor.

Dr. Fluck estimates that hundreds of women like Mrs. Smith lose their lives every year because of this kind of gossip. And he recalls, almost wistfully it seems, an earlier time when "waggers of mischievous tongues" were dunked in specially built chairs in various New England rivers and creeks. But since gossiping isn't a crime today in any state in the nation, the matter is strictly an individual problem.

At this point, Dr. Fluck poses a hypothetical question: Can Mrs. Smith shrug her shoulders and forget the deadly gossip? Maybe, says he, if she has cataracts in both eyes and is stone deaf in both ears! But what she can do is barge right in on the worst gossipers and mince no words coming to the point. In that way she can make her friends and everyone else believe that she is not dying on her feet.

Though we know much about the medical problems which face us, the fact remains that many curable ailments are neglected until it is too late for them to be cured. There is the case of the young woman who could not sleep at night for months because of her keen awareness of several large lumps in her breast. She lived in fear that she had cancer, and she confided in no one. Finally, a painful attack of bursitis impelled her to a doctor's office where a complete physical examination revealed the lumps. Luckily for the young woman in question, biopsy revealed the presence of benign tumors which were removed by surgery. However, if things had been different, and the growths had been malignant, the months during which she neglected or postponed obtaining medical advice might very well have meant the difference between life and death. Doctors every day are fighting a losing battle against many cancers in the final stages—and often because individuals failed to recognize early symptoms or refused to do anything about known symptoms.

Some cases of neglect are, at least, more

understandable than others. This is especially true in the case of a baffling disease such as brain tumor. One author, writing in the June 1953 issue of *Today's Health*, has compared a benign, or non-cancerous brain tumor to a stone placed in a garden, causing the plants beneath it to die from pressure and lack of water and sunlight. For a malignant brain tumor, which may grow especially fast and destroy surrounding tissues, she uses these descriptive adjectives: "It might be compared to a fast-spreading weed which chokes the garden, or to a horde of caterpillars or grasshoppers which chew up the plants." It has been said that doctors themselves have not, in the past, been sufficiently brain tumor conscious. In addition, diagnosis is in many instances difficult and confusing. For one thing, the symptoms which brain tumors cause are so common, even in healthy people, that self-treatment is the rule rather than the exception. Headache is one of the most common symptoms of brain tumors. And there, of course, is where the trouble begins. For headache is also a common complaint from simple causes like alcohol consumption, eyestrain, late hours, strong emotion and from various diseases. Here, then, neglect is a twin to another danger—that of confusion.

The "difference" in headaches caused by brain tumors is that they are more likely to occur in the morning on getting up, or after any change in position, such as lying down after moving around. The ache is increased by straining, sneezing, bending over, because these actions increase intracranial pressure. Such a "different" headache should be taken to the doctor for an examination.

Moreover, characteristic symptoms of brain tumors are nausea and vomiting. And here, again, confusion enters the picture, since nausea and vomiting are also symptomatic of relatively simple digestive troubles such as overeating.

Neglect and delay are very much in evidence with regard to follow-up medical care. Perhaps you can count yourself among the untold number of persons who daily weary of treatment before they are cured and leave off going to the doctor. Needless to say, time spent in the doctor's office is often the only way to alleviate or prevent pain, tedious though it may sometimes be. The alternative of great pain and, often, death is not at all pleasant to contemplate.

Kidney stones is only one of many diseases which require periodic follow-ups. Although almost 7,000 years have passed since an Egyptian boy died with a stone in his bladder, men of medicine still do not know the complete answer to the problem of urinary stones. But they have many clues, and this much they do know. The stones are sometimes caused by a tumor or overgrowth of the parathyroid gland in the neck which allows ten times as much calcium to leak through the kidneys as would normally pass. Or there may be poor use of protein in the body, in which case the stones are formed from the chemicals tossed out through the kidneys as unfit for use. More than one-fifth of the patients who form one stone will form another later. The rate of growth and the recurrence of stones can be cut by a special diet which makes the particular chemicals in stones—there are at least eight different chemical types—more soluble or less concentrated in the urine. A great deal can be done to help a person so afflicted if the stones are found early and if they are watched closely. A person who has once passed a stone should have an x-ray at least once a year thereafter.

In some cases neglect and indifference do harm only to the persons who allow themselves to fall prey to their dangers. However, in many other cases, failure to keep the body in the best of health affects indirectly, if not directly, the well-being of others. The reason is clear in the case of contagious diseases. And the effects are obvious, too, where parents and children are concerned. The primary responsibility for child health remains with mothers and fathers, and only they can oust completely barriers such as these.

Procrastination has been said to be the "thief of time." Where health is concerned it can steal away with peace of mind and many lives. There is no accurate measurement of the degree to which these "road-blocks" function to our disadvantage. But there is no doubt that we have a long way to go in removing them completely.

The immediate value of the x-ray survey at hospitals for the mentally ill is obvious. The patients who have active tuberculosis are receiving specialized care both for their mental and for their physical illnesses. They are isolated and therefore the non-tuberculous patients are spared the insidious long-time mass exposure to a highly infectious disease which without the x-ray might go undetected.—Elizabeth S. Kletzsch, NTA Bulletin, February '54.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

July 1954

Examinations for diphtheria bacilli and Vincent's	225
Agglutination tests	1,020
Typhoid cultures (blood, feces and urine)	795
Brucella cultures	14
Examinations for malaria	172
Examinations for intestinal parasites	3,419
Serologic tests for syphilis (blood and spinal fluid)	22,386
Darkfield examinations	2
Examinations for gonococci	1,700
Examinations for tubercle bacilli	3,465
Examinations for meningococci	0
Examinations for Negri bodies	124
Water examinations	2,118
Milk and dairy products examinations	5,285
Miscellaneous	2,137
Total	42,862

The Abuse of Tetanus Antitoxin—The practice of giving tetanus antitoxin to virtually every person with a break in his skin has become such a standardized procedure in emergency operating rooms of hospitals and doctors' offices that a doctor who failed to give it would probably be in danger of losing a suit for malpractice should the patient develop tetanus later on. It is true that the chief value of tetanus antitoxin lies in preventing tetanus, rather than in curing it after symptoms develop. One may be pardoned, however, for asking if the wholesale use of tetanus antitoxin is justified, and if the medical precept to treat every case on its individual merits has not been forgotten. Every doctor who has been in practice for even a year or two can recall patients who have had terrific reactions to tetanus antitoxin, even after negative skin tests. In many such cases the risk of allergic reaction is compounded when penicillin is given parenterally with or after the antitoxin.

Many doctors have practiced for a lifetime without ever seeing a case of tetanus. In view of the rarity of the disease, one should weigh carefully the relatively certain hazard of serum reactions against the remote possibility of tetanus developing in a wound exposed to an abundance of oxygen. It should be remembered that the tetanus organism is anaerobic and does not live in an open cut or an abrasion which is exposed to air.

The custom, which is happily becoming almost universal, of immunizing children against tetanus and of keeping them immune by occasional booster doses should eventually eliminate the necessity for using tetanus antitoxin except in rare cases.—Editorial, North Carolina M. J., August 1954.

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

	May	June	E. E.*
		June	June
Typhoid and paratyphoid fever	10	7	6
Undulant fever	4	2	2
Meningitis	21	13	9
Scarlet fever	41	16	22
Whooping cough	74	64	162
Diphtheria	3	4	11
Tetanus	2	0	4
Tuberculosis	275	210	232
Tularemia	2	0	1
Amebic dysentery	4	2	2
Malaria	1	0	18
Influenza	130	65	68
Smallpox	0	0	0
Measles	1717	575	428
Poliomyelitis	32	35	24
Encephalitis	1	0	0
Chickenpox	239	98	75
Typhus fever	1	1	14
Mumps	270	131	121
Cancer	532	562	332
Pellagra	3	0	3
Pneumonia	275	204	130
Syphilis	179	146	955
Chancroid	8	18	12
Gonorrhea	508	489	151
Rabies—Human cases	0	0	0
Positive animal heads	30	29	0

* * *

	June	July	E. E.*
		July	July
Typhoid and paratyphoid fever	7	8	8
Undulant fever	2	2	1
Meningitis	13	5	9
Scarlet fever	16	21	17
Whooping cough	64	66	80
Diphtheria	4	13	10
Tetanus	0	5	4
Tuberculosis	210	191	223
Tularemia	0	0	0
Amebic dysentery	2	1	2
Malaria	0	2	17
Influenza	65	25	27
Smallpox	0	0	0
Measles	575	228	124
Poliomyelitis	35	77	62
Encephalitis	0	0	0
Chickenpox	98	30	13
Typhus fever	1	3	20
Mumps	131	135	60
Cancer	562	463	318
Pellagra	0	0	3
Pneumonia	204	177	96
Syphilis	146	150	888
Chancroid	18	4	14
Gonorrhea	489	387	531
Rabies—Human cases	0	0	0
Positive animal heads	29	36	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR JUNE 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered During June 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Total live births	6392	4005	2387	24.3	24.8	22.9
Total stillbirths	175	72	103	26.6	22.2	29.4
Deaths, stillbirths excluded	2037	1208	829	7.7	7.9	9.0
Infant deaths—						
under one year	194	86	108	30.4	33.8	50.5
under one month	133	65	68	20.8	25.3	33.5
Causes of Death						
Tuberculosis, 001-019	33	17	16	12.5	16.5	18.7
Syphilis, 020-029	8	3	5	3.0	6.1	2.3
Typhoid and paratyphoid, 040, 041						0.4
Dysentery, 045-048	4	1	3	1.5	1.9	2.7
Diphtheria, 055	1		1	0.4	0.4	
Whooping cough, 056	1		1	0.4		0.8
Meningococcal infections, 057	2		2	0.8	0.4	0.4
Poliomyelitis, 080, 081	4	4		1.5	0.8	0.4
Encephalitis, 082, 083						0.8
Measles, 085	1		1	0.4		3.1
Malignant neoplasms, 140-205	235	166	69	89.2	86.3	98.4
Diabetes mellitus, 260	21	13	8	8.0	8.8	12.8
Pellagra, 281	4	4		1.5	0.4	0.4
Vascular lesions of central nervous system, 330-334	284	155	129	107.8	97.1	127.2
Other diseases of nervous system and organs of special sense, 340-398	30	17	13	11.4	7.3	14.8
Rheumatic fever, 400-402	4	1	3	1.5		2.7
Diseases of the heart, 410-434	473	332	141	179.6	193.4	
Hypertension with heart disease, 440-443	163	80	83	61.9	59.1	249.3
Diseases of the arteries, 450-456	42	31	11	15.9	10.7	13.6
Other diseases of circulatory system, 444-447, 460-468	36	15	21	13.7	10.7	12.8
Influenza, 480-483	5	1	4	1.9	2.7	5.4
Pneumonia, 490-493	52	25	27	19.7	19.6	5.1
Bronchitis, 500-502	1	1		0.4		0.4
Appendicitis, 550-553	2	1	1	0.8	1.5	1.6
Intestinal obstruction and hernia, 560, 561, 570	18	11	7	6.8	4.6	6.2
Gastro-enteritis and colitis (under 2)						
571.0, 764	21	2	19	8.0	5.8	13.2
Cirrhosis of liver, 581	12	12		4.6	3.4	5.1
Diseases of pregnancy and childbirth, 640-689	6	2	4	0.9	13.6	18.2
Sepsis of pregnancy and childbirth, 640-641, 645.1, 651, 681, 682, 684						6.0
Congenital malformations, 750-759	30	26	4	4.7	3.6	5.1
Accidental deaths, total, 800-962	151	89	62	57.3	63.7	78.6
Motor vehicle accidents, 810-835, 960	50	34	16	19.0	34.5	38.5
All other defined causes	311	173	137	118.1	138.9	147.8
Ill-defined and unknown causes, 780-793, 795	82	25	57	31.1	38.0	45.5

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

AMERICAN MEDICAL ASSOCIATION NEWS

VIGOROUS ACTION URGED FOR BETTER MENTAL HEALTH

Vigorous action by state and county medical societies to bring about needed improvements in the nation's mental hospitals was urged recently by Dr. Elmer Hess, president-elect of the American Medical Association.

"If there is any group of patients whose improvement and cure are dependent upon the need for a healthy, pleasant environment, good nutrition, adequate housing and competent professional and ancillary personnel, it surely is this group of patients with disturbed emotional and mental states," he said. "In spite of this, more than half of the nation's hospitalized patients are crowded into institutions that are lacking or inadequate in each or all of the respects mentioned."

Dr. Hess opened a two-day conference of mental health representatives of state medical associations. The conference is designed to create closer working relationships between the family doctor, psychiatrists, and mental institutions in caring for mental patients.

The Erie, Pa., physician said the "lack of emphasis by private medicine and the resigning of mental patients to the impersonal mercy of state and political medical care has resulted in many areas of this country in what closely approaches national disgrace. Here, in this area of medical care is certainly an example of political responsibility . . . or should I say irresponsibility?"

"The situation is an acute one. . . . I am told by doctors who have been closer to these situations than I, that conditions of some of the most neglected of these so-called hospitals still rival conditions in London's once ill-famed 'Bedlam'."

Dr. Hess recalled that the A. M. A.'s Committee on Mental Health was established two years ago "to take an interest in and develop a program in the field of mental health and illness." A 13-point program already has been developed, he said, and doctors must now do more than just endorse it.

The A. M. A. president-elect recommended to the conference that members of state and county mental health committees

"spend a few days visiting their own state and county institutions" so that actual conditions can be observed. He called for a closer working relationship between the family doctor, psychiatrists, and mental institutions.

"We must renew and strengthen our efforts to make public officials, and the public generally, realize that these patients are not to be treated as lost causes or as criminals to be punished, but as sick people, many of whom, with proper care, again can become healthy, happy, useful, and productive people," Dr. Hess said. "We already have delayed too long; the job to be done belongs to all of us."

VISITOR COMPARES BRITISH, U. S. FAMILY DOCTORS

The American general practitioner "can and does" do a better job in many ways than the family doctor in Britain, a Scotch physician said recently.

Dr. Charles M. Fleming, after a three months' tour in the United States, reported on his comparisons in the Sept. 18 Journal of the American Medical Association.

He said he was "impressed" with the standard of work done by most general practitioners here, the reactions of patients, and the confidence of all in the future of general practice.

The British general practitioner slowly has been displaced from his position as "family doctor" by the encroachments of socialized medicine and the growth of the clinic system and specialization, he said. Often the family doctor acts only as "a sign-post directing the patient to the right hospital department," since almost all but the simplest cases are referred to hospitals for diagnosis and treatment.

This is because the British National Health Service "started at the wrong end," he said. It has made it easier for the patient to enter the hospital by raising the status of the specialist, even though "it has been pointed out that the way to run a health service efficiently and economically is to keep the patient out of the hospital whenever possible."

According to Dr. Fleming, American family doctors have better equipment and use it more; save time by using extra help, such as nurses, secretaries, and laboratory technicians, and are better off in holding some kind of hospital appointment. He said it is "generally accepted" that an American general practitioner should have the privilege of caring for his own private patients in a hospital. This practice is advocated by the American Medical Association, the American College of Surgeons, and the American Hospital Association.

He said it is easier for an American physician to enter general practice, while in Britain specialist trainees are going into general practice only because hospital staffs are filled. "So-called health centers with group practice, which were envisaged before it was realized the (National) health service would cost nearly \$1,400,000,000 yearly, now exist in the imagination only," he said. Group practice is commoner in the U. S., giving more opportunities for greater efficiency to the "key member of the team, the family doctor." This results in better service for the patient.

The scope of the American family doctor's practice is wider, and he still performs major operations, which is not done in Britain.

"The general practitioner surgeon is now unknown in Britain; he disappeared with the advent of the National Health Service in 1948," Dr. Fleming said. "In the United States, the general practitioner is encouraged to investigate and treat his patients with a full range of diagnostic and therapeutic facilities, which in Britain are available only to the hospital specialist."

CHILD ACCIDENT PREVENTION NEEDS OUTLINED

Accident prevention habits, like good manners, are a form of behavior and can be made a deep-rooted part of a child's nature, two Cleveland physicians said recently.

Drs. Ralph I. Fried and William W. Herman reported in the Sept. 18 Journal of the American Medical Association on their work with a committee on accident prevention in children.

One of the major goals of the program was to teach parents, particularly by their family doctors, that if a child is taught accident control early "he conducts himself all through his life with a minimum of risk, effortlessly and naturally."

"When a child learns that his parents' love and affection will not permit him to do any truly injurious act, he becomes more convinced of that love than by any other parental act," they said. "The knowledge he acquires from their educational efforts augments his self-confidence so that, if the whole idea is intelligently and quietly applied, his sense of security becomes deeply rooted."

The prevention committee started its work by gathering previously unavailable statistics on childhood accidents. They found that an estimated 35,000 accidents requiring hospitalization occurred during one year among children under 14 years old.

The survey showed 60 per cent of all accidents happened in the home. Home accidents accounted for 93 per cent of all in children under one year old, 76 per cent in children one to five, and 41 per cent in children six to 14. Forty-four per cent of all occurred from May through August. Sixty-seven per cent were falls that produced fractures, lacerations and bruises; dog bites, auto accidents, poison, swallowed foreign objects, and bicycles or skates accounted for three to five per cent each.

The committee's accident-prevention program included use of the health nursing program for educating parents; a speakers bureau; radio and television publicity, and child safety legislation work. It also lobbied for ordinances to require removal of unused iceboxes from places where children might crawl into them.

They said such a program not only will decrease accidents "but will improve almost every facet of child-parent relationship—the very essence of pediatrics and in every sense the foundation structure of civilization."

FACTOR IN SUDDEN DEATH OF INFANTS SUGGESTED

A low level of the natural antibodies that fight infection and disease may possibly account for some sudden, unexpected deaths of infants, three New York scientists said recently.

They said if the theory could be confirmed by future studies, the routine injection of small amounts of gamma globulin in young infants "might possibly prevent a substantial number of these sudden and unexpected deaths."

The theory was reported in the Sept. 18

Journal of the American Medical Association by David M. Spain, M. D., Victoria A. Bradess, M. D., and Irving J. Greenblatt, Ph. D., Brooklyn.

It has been estimated that each year several thousand young infants in apparently good health die suddenly and unexpectedly, they said. The usual case is that of an infant one and a half to three and a half months old who is put to bed and found dead several hours later. The deaths are sometimes attributed to accidental mechanical suffocation, imbalance of certain gland chemicals, and various forms of infection, such as pneumonia. The Brooklyn scientists said only a diagnosis of infection appears to have any validity in most cases.

In studying 52 such deaths, the most significant finding was occasional signs of infection, particularly in the respiratory system. The peak incidence was during winter and early spring. Deaths also reached a peak between two and three months of age, the "critical" period when the antibodies given to the baby by the mother before birth wear out and the baby begins building his own antibodies.

These findings suggested that the level of gamma globulin, a protein substance of the blood, might be a factor, since most anti-

bodies are of the gamma globulin type of make-up. Gamma globulin produced from blood plasma has been used against such diseases as measles and epidemic hepatitis. The Brooklyn scientists said they tested gamma globulin levels in five babies who died suddenly, three of them without apparent cause. These three had unusually low GG levels. The other two were normal.

"It is therefore possible that an important factor in the inability of these infants to respond to an infection in the usual way by fighting it with antibodies may be dependent on a deficiency in antibodies as well as gamma globulin," they said. They noted that the number of cases studied was too small for any conclusions, but said if their theory could be confirmed by other studies, routine GG injections might prevent some of these deaths.

WORLD MEDICAL MEETING STUDIES HEALTH CARE

One of the highlights of the eighth general assembly of the World Medical Association was a study and discussion of health care in relation to the patient, the physician and international law. The meeting was held Sept. 26 to Oct. 2 in Rome, Italy.



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BENIGN LESIONS OF THE BREAST

JOHN L. CARMICHAEL, M. D.
Birmingham, Alabama

The benign lesions of the breast are of interest to the physician, and especially to the surgeon, because of their etiologic and diagnostic relationship to malignancies of this organ. A list of most of the benign lesions of the breast and a brief discussion of some of them are presented below to gain a perspective for a more complete discussion of the three considered to be the most important. These latter three are fibroadenoma, fibrocystic disease, and intraductal papilloma. It is desired also to discuss a symptom common to two of these—i. e., nipple discharge. These three conditions are naturally set apart from other benign lesions of the breast in that they appear to be due to hormonal imbalances in the patient.

The other benign lesions of the breast can be classified profitably into (1) the inflammatory conditions and (2) the tumors and hypertrophies. Among the inflammations should be mentioned puerperal mastitis, mastitis neonatorum, syphilis, tuberculosis, the fungus diseases, Boeck's sarcoid, fat necrosis, and periductal and plasma cell mastitis. Among the tumors and hypertrophies may be listed lipoma, lymphoma, melanoma, angioma, myomatous tumors, chondromas, osteomas, sebaceous and dermoid cysts, asymmetrical breasts, supernumerary and accessory breasts, and gynecomastia. It is worth while to mention, in passing, that the gumma of syphilis and the lesions of fat necrosis and plasma cell mastitis so closely resemble carcinoma grossly that there are records of radical mastectomies done erroneously in each of these conditions.

Although it is desired to be as brief as pos-

sible, a few of the salient points regarding the anatomy and physiology of the breast should be mentioned. The adult human female breast is made up of from 15 to 25 lobules, each separated from the adjacent ones more or less completely by the fascial sheets of Cooper's ligaments, and each drained at the nipple by a separate duct. Each duct, by a process of multiple branching, develops many terminal small ducts where the so-called germinal epithelium begins and where the acini are formed. Surrounding these ducts and acini is the periductal and pericanalicular and periacinar fibrous tissue. It is this fibrous tissue and the epithelium of the ducts and acini that are responsive to the ovarian hormones and to some of the other hormones of the body. The knowledge concerning these reactions is, of course, not at all complete but it is fairly generally thought^{1, 2} that the estrogens stimulate the periductal and pericanalicular and periacinar fibrous tissue and the epithelium of the ducts down to the terminal ducts. The germinal and acinar epithelium on the other hand seems to be stimulated by progesterone. It is thought more recently that, in addition to this stimulating effect of the progesterone on the germinal and acinar epithelium, there is an inhibiting effect of the progesterone on the ductal epithelium. Thus it would appear that progesterone antagonizes the effect of estrogen on the duct epithelium. There is evidence that up to the time of ovulation the breast development is chiefly that of ductal expansion

1. Womack, Nathan A.: Benign Lesions of the Breast, Rocky Mountain M. J. 48: 418 (June) 1951.

2. Geschickter, C. F.: Diseases of the Breast, J. B. Lippincott Co., Philadelphia, 1943.

but after the corpus luteum forms and progesterone is secreted in increasing amounts, there is marked expansion of the acini and lobules, with retardation of ductal development. This expansion builds up until a day or two before the onset of menstruation at which time regression of involution takes place to complete the cycle of breast changes.

In a broad sense, fibroadenoma, fibrocystic disease and intraductal papilloma may be looked upon as different manifestations of one disease, i. e., of hormone imbalance. Not only are these changes in the breast related directly to the absolute amounts of the estrogen and the progesterone in the body but probably in a greater degree to the relative proportion of progesterone to estrogen.

Geschickter² found in animal experiments that, if estrogen is given in greater than physiologic amounts and the time of administration is prolonged, the growth of the glandular tree is stunted or stopped and the condition of mastodynia is produced. This is characterized by increase of periductal fibrous tissue, dilatation of small ducts, and by partial conversion of the lobular buds into irregular acini, some of which are dilated and filled with secretion to form small cysts. He found that if relatively large doses of estrogen are given to rats, mastodynia is followed by cyst formation in three to six weeks and, if constant and relatively intense stimulation is carried on by implanting multiple pellets, small multiple cysts complicated by adenosis occur in 4 to 12 weeks. This corresponds roughly to one stage of fibrocystic disease as we see it in the human.

Mastodynia is a relatively early response to excessive estrogen stimulation in the presence of insufficient amounts of luteal hormones (testosterone, progestin and progesterone). Severe adenosis with multiple cysts, followed by cancer, supervenes if high doses of estrogen are administered over prolonged periods alternating with insufficient amounts of luteal hormones. Kier³ and associates have recently found, by direct chemical analysis of the removed tissue, that the patient with a benign lesion of the breast shows a considerable deficiency of progesterone-like substances as compared to estrogen-like substances in her breast. This emphasizes, further, the possible role of

progesterone deficiency in fibrocystic disease. The finding by Mathieu⁴ of a relative hyperestrogenism in cases of painful breasts (mastodynia) also emphasizes the importance of relative progesterone deficiency. He determined this relative hyperestrogenism by studying vaginal smears, by endometrial biopsy, and by pregnandiol assays. The finding of fibrocystic disease so frequently in the patient with irregular periods and other evidences of the lack of ovulation is consistent with these experimental findings.

Geschickter² found that if a castrated female rat is given large doses of estrogen (200 grams of estrone in oil daily) large cysts form in from 6 to 12 weeks. He concludes that one or more large cysts are usually the result of brief intense estrogen stimulation unopposed by corpus luteum function. In discussing the results of these experiments, Geschickter states that they indicate that with moderately depressed corpus luteum function small but relatively normal lobules form, but if the deficiency is of long duration, mastodynia followed by adenosis (fibrocystic disease with microscopic papilloma) ultimately ensues. Under such conditions intense estrogenic stimulation results in benign papillomatous growth or in papillary adenocarcinoma. Along the way in this evolutionary change large cysts may form.

In the same series of experiments² Geschickter found that fibroadenoma may be produced in the mammary gland of the rat by prolonged estrogen stimulation. The constancy with which the hormone level is maintained is more important than the intensity of the stimulus. If a brief but intense degree of stimulation is provided, the effect is chiefly on the epithelium, with a less intense but constant level of stimulation the fibrous tissue responds selectively. This finding is consistent with the more frequent occurrence of fibroadenoma in the young adult and during periods of gestation, when the estrogen production is at a high level.

What shall be done now with the patients who present themselves with the discrete nodules which appear to be fibroadenomata, or with what appears to be fibrocystic disease, or with an intraductal papilloma, or with merely a discharge from the nipple and no other finding?

3. Kier, Lawrence C.; Hickey, Robert C.; Keetel, William C., and Womack, Nathan A.: Endocrine Relationship in Benign Lesions of the Breast, Ann. Surg. 135: 782, 1952.

4. Mathieu, J.: Estimation of Hormone in the Painful Breast, Lyon Chir. 47: 453, 1952.

The decision in regard to the case with the discrete nodule can easily be made. All would agree that this should be removed, with a good margin of normal tissue, subjected to frozen section study, and the wound closed if fibroadenoma is the diagnosis. This unanimity of opinion results from two facts. In the first place, the diagnosis can be made with certainty only by tissue examination. Secondly, it is fairly sure that an occasional malignancy arises from the adenoma, either sarcoma or a carcinosarcoma. Treves and Sunderland,⁵ who have presented their results of a thorough study of cystosarcoma phylloides of the breast, state that they found in 26 breasts, of their 77 cases, areas which they interpreted as the remnants of an old intracanalicular fibroadenoma.

What will be done with the other three groups of cases depends to a great extent on our surgical philosophy and especially on our opinion as to the etiologic relationship of fibrocystic disease and intraductal papilloma to cancer. Here, it is wise to define the terms used and to draw a definite line between the two conditions. Thinking will be much clearer if one includes in the intraductal papilloma group only those papillomata which are macroscopic in size or palpable. Here, also, should be included the intracystic papilloma. It is thought desirable to leave in the fibrocystic group all of those patients who have only microscopic papillomata. Included in the fibrocystic group, also, should be the large, single or multiple cysts.

The patients who come with fibrocystic disease present to the physician one of his most vexing problems. The basic feature of fibrocystic disease is hyperplasia, hyperplasia of the periductal fibrous tissue, or hyperplasia of the epithelium, or hyperplasia of both of these tissues. When hyperplasia of both occurs, the ratio of one type to the other and the resulting anatomic condition may vary infinitely. To make the confusion worse, the hyperplasia may be diffuse throughout one or both breasts or may be localized to one or several areas of one or both breasts. Such variable manifestations of breast change make it difficult often for the physician to determine whether he is

dealing with a neoplasm or simply with breast changes due to hormonal dysfunction. To perplex the physician still further, there is no agreement as to whether or not fibrocystic disease is a precancerous lesion.

At this point, it seems desirable to review the evidence for and against the precancerous nature of fibrocystic disease. Lewis and Geschickter⁶ in 1938 reported follow-up studies of 5 years or more on 173 cases of fibrocystic disease (chronic cystic mastitis), some of whom were not subjected to operation and some of whom were operated upon. Only three of these were known to have died of cancer originating in the breast. However, in 1943, Geschickter² reported on 79 untreated cases of fibrocystic disease followed for more than 5 years. He found 3 cases of cancer of the breast, giving an occurrence rate of 4%. Two of these were fatal. Shields Warren,⁷ reporting on an extensive statistical study of women in Massachusetts, stated that the breast cancer attack rate is .12 per 100 of Massachusetts women over 30 years of age. He found that for women with chronic mastitis and related lesions in the age group 30 to 49 the breast cancer attack rate was 11.7 times that for the Massachusetts female population. For the entire group regardless of age, the cancer attack rate was 4.5 times as great as that for the Massachusetts female population. He concluded that chronic cystic mastitis and chronic mastitis predispose to the development of breast cancer. Another observation lends weight to this conclusion: that is the occurrence of three-fourths of all breast cancer in the upper outer quadrant of the breast where fibrocystic disease also has its greatest occurrence rate. It seems safe to conclude with Warren that fibrocystic disease does predispose to cancer of the breast or that they are related to each other through a common etiologic factor.

Some additional evidence may be had from the following case study which is similar to others that have appeared in the literature. Mrs. S., referred by Dr. R. O. Russell, was admitted to St. Vincent's Hospital for biopsy of the most prominently involved

6. Lewis, Dean, and Geschickter, C. F.: Relationship of Chronic Cystic Mastitis to Carcinoma of the Breast, *Surg., Gynec. & Obst.* 66: 300 (Feb.) 1938.

7. Warren, Shields: Relation of Chronic Mastitis to Carcinoma of Breast, *Surg., Gynec. & Obst.* 71: 257 (Sept.) 1940.

5. Treves, Norman, and Sunderland, Douglas A.: Cystosarcoma Phylloides of the Breast, Malignant and a Benign Tumor, Clinico-Pathological Study of 77 Cases, *Cancer* 4: 1286 (Nov.) 1951.

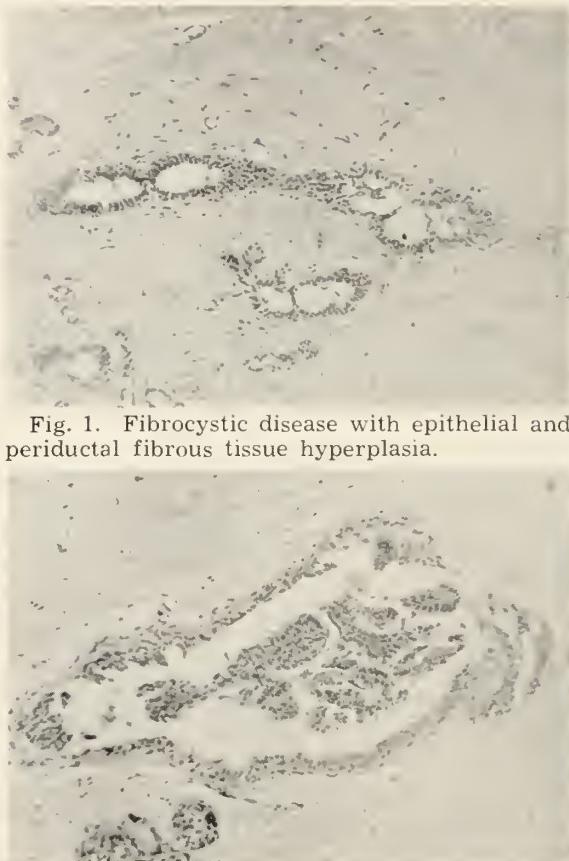


Fig. 1. Fibrocystic disease with epithelial and periductal fibrous tissue hyperplasia.

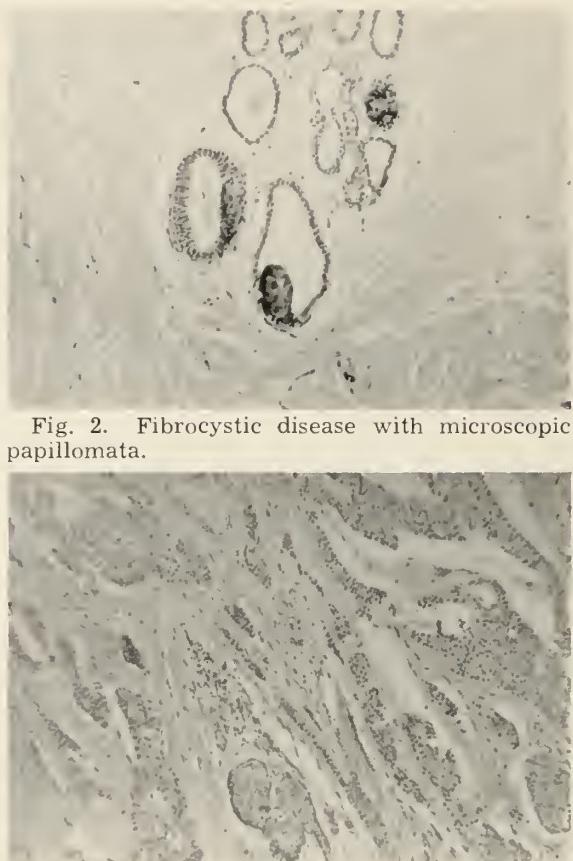


Fig. 2. Fibrocystic disease with microscopic papillomatous change.

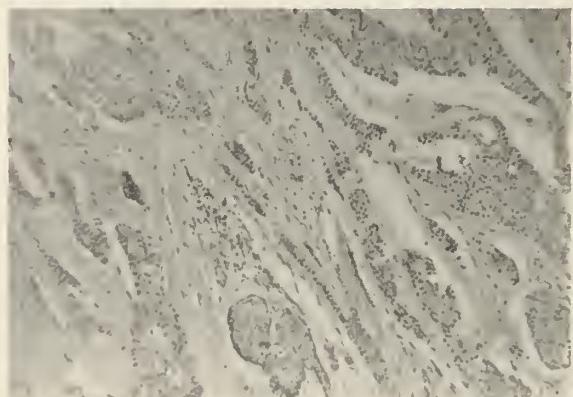


Fig. 3. Branching intraductal papilloma.

portions of each breast. As may be seen in figures 1 to 4, in one area fibrocystic disease was observed; in another, fibrocystic disease with microscopic papillomatous change was noted. In another, a large, branching papilloma was found; and in a fourth area, true carcinoma appeared. Although it is admitted that the concomitant occurrence of fibrocystic disease, of papilloma, and of carcinoma does not prove an etiologic relationship among these conditions, it is thought to be suggestive of such relationship.

The high incidence of fibrocystic disease also adds to the perplexity of the physician. Frantz⁸ and associates, from an autopsy study of 225 cases, reported gross cystic disease in 19% of the cases, and, if apocrine epithelium and microcysts were included, the disease was present in 53%. Obviously, in such a situation, the physician must exercise great discrimination when he advises a patient to have a biopsy of the breast. It seems wise to accept for biopsy only those cases that present a definite localization of

this fibrocystic change in one or more areas. It is felt that one must accept the viewpoint of Stout⁹ when he says that "if a woman has a dominant lump in her breast, different from all other portions of the breast, regardless of whether or not she has evidence of cystic disease, there is an obligation to investigate that lump to find out whether or not it is cancer."

In a discussion of fibrocystic disease there is still to be considered the large cyst of the breast which is most often solitary but may be multiple. Typically, the large cyst occurs rather suddenly in a middle-aged spinster or woman who has had no children for several years. In an analysis of 589 cases Geschickter² found that 7.5% were relieved spontaneously. When aspiration only was done, the cyst refilled or an additional cyst occurred in 67% of the cases. In 432 cases treated by excision, there was a recurrence rate of only 15%. Among a total of 387 cases followed for more than 5 years, 4 or 1% developed mammary cancer. Geschickter²

8. Frantz, et al.: Chronic Cystic Disease in Normal Breasts, *Cancer* 4: 762 (July) 1951.

9. Stout, A. P.: Hoover G. Phillips Hosp., Tumor Staff Meeting: The Technique of Diagnosis of Breast Carcinoma, *J. Nat. M. A.* 39: 94, 1947.

states that a solitary cyst is best treated by simple excision and that, if it recurs, aspiration may be done. Among those who advocate aspiration as the only treatment are Patey and Nurick¹⁰ of England and Johnston¹¹ of this country. The latter cites the following precautions if one is to use aspiration as the treatment: (1) All masses which do not completely disappear should be immediately excised; (2) If grossly bloody fluid is obtained, immediate biopsy is carried out; (3) If the cyst refills after two aspirations, it is best to excise the cyst; (4) Smaller cysts extending beneath the areola should be excised; (5) Cysts with suspicious cytology findings should be promptly excised; (6) All patients should be instructed in self-examination and followed closely by the physician after aspiration, and (7) Aspiration should be done only by one trained in surgery of the breast and aware of its limitations.

As one examines the literature and his own personal experiences, one feels that the aspiration treatment is permissible if the precautions given by Johnston are observed. There is the question, however, whether or not it might be easier on the patient and the physician to do simple excision almost routinely.

Now what shall be done with the patient presenting a macroscopic or palpable papilloma of the breast? All would agree that the papilloma should be removed. This agreement arises from the opinion of almost all that the papilloma may be a precancerous lesion. The difference of opinion arises over whether a simple mastectomy or local excision should be done.

Chester and Bell,¹² reporting on 59 cases of intraductal and intracystic papillomas, stated that 25 had local wedge-shaped excisions and 33 had simple mastectomy, and one, apparently through error, a radical mastectomy. They observed that nearly twice as many multiple papillomata were found in the cases treated by simple mastectomy as were found in wedge-shaped excision, indicating that in wedge-shaped exci-

10. Patey, David A., and Nurick, A. W.: Cystic Disease of Breast, *Brit. M. J.*, Jan. '53.

11. Johnston, J. Harvey, Jr.: Aspiration as a Diagnostic and Therapeutic Procedure, *Ann. Surg.* 139: 635 (May) 1954.

12. Chester, S. T., and Bell, H. G.: Intraductal and Intracystic Papillomas of the Breast, *West. J. Surg.* 59: 603 (Dec.) 1951.

sions papillomata were missed. They conclude, however, from their study that local removal with or without wedge-shaped excision or simple mastectomy gives approximately the same results. Haagensen, Stout and Phillips¹³ and Estes and Phillips¹⁴ and Campbell¹⁵ report that in their respective series no patients have been known to have developed cancer after local excision.

On the other hand, Geschickter² found that in those cases in which local excision was done cancer developed later in 3 out of 56 patients. Warren⁷ found cancer to develop in 3 out of 21 and Donnelly¹⁶ in 3 out of 15. Kilgore¹⁷ and associates, in a study of 34 patients having local excision of an intraductal papilloma, found that cancer later occurred in 3 patients but in one of these it was in the opposite breast. They found in 23 cases, after local excision of a papillary cystadenoma, that cancer occurred later in 5 patients, but in one of these, also, it occurred in the opposite breast.

After a review of the experiences of those writing on the subject of intraductal papilloma, one comes to feel that a definite but fairly small risk is taken if one elects to do only local excision. Whether simple mastectomy or local excision is done must depend largely on the patient's attitude and that of her husband toward the loss of her breast and, to some extent, on the surgeon's own philosophy. It is felt, also, that a history of cancer in the family of the patient should have considerable weight in the decision.

There comes now another perplexing problem: that is the discharging nipple in the absence of a palpable lesion. The incidence of nipple discharge is considerable. In 2269 cases of mammary lesions treated in the Department of Surgery at the State Uni-

13. Haagensen, C. D.; Stout, A. P., and Phillips, J. S.: Papillary Neoplasms of the Breast, *Am. J. Surg.* 133: 18, 1951.

14. Estes, A. C., and Phillips, C.: Papilloma of Lacteal Duct, *Surg., Gynec. & Obst.* 89: 345, 1949.

15. Campbell, O. J.: Relationship Between Cystic Disease of Breast and Cancer, *Arch. Surg.* 28: 1001, 1934.

16. Donnelly, B. A.: Nipple Discharge; Its Clinical and Pathological Significance, *Ann. Surg.* 131: 342, 1950.

17. Kilgore, Alson R.; Fleming, Ruth and Ramos; and Mario, Manuel: Incidence of Cancer with Nipple Discharge and the Risk of Cancer in the Presence of Papillary Disease of the Breast, *Surg., Gynec. & Obst.* 96: 649 (June) 1953.

versity of Iowa Hospital, in the period 1929 to 1949, Donnelly¹⁶ found 219 or 9.6% with a presenting complaint of nipple discharge. Hinchey¹⁸ reported nipple discharge in 7.6% of 898 patients seen in the Massachusetts General Hospital Tumor Clinic from May 1925 to January 1939.

The patients with nipple discharge should be divided into two main groups: those with what Donnelly¹⁶ and others¹⁹ call a stagnation discharge and those with a hyperplastic discharge. The stagnation discharge arises usually in the cases of fibrocystic disease without epithelial hyperplasia. The discharge may be white, yellow, green or brown. It is frequently from more than one duct. The presence of blood, either occult or microscopic, is almost pathognomonic of epithelial hyperplastic change. It is quite important to check this discharge for microscopic or occult blood. If the discharge contains no blood, the patient should be requested to come at regular intervals to see if the character of the discharge changes. Kilgore¹⁷ and associates, however, observed only two instances in which a milky discharge was seen eventually to contain blood.

In the other group the underlying lesion is chiefly that of epithelial hyperplasia. The hyperplasia may vary from heaping up of epithelium in small papillary invaginations to definite intraductal adenoma, papilloma or carcinoma. The discharge is serosanguineous or sanguineous. Blood can be found by microscopic or chemical tests. It is in the handling of these cases that much disagreement has arisen.

Donnelly,¹⁶ in 115 patients with a sanguineous discharge, found 61 or 53% to have a malignant lesion and more importantly all of these showed evidence of epithelial hyperplasia. He found also that 64% of the patients with a serous discharge had a malignant lesion. In both of the above groups were patients with palpable tumors. Adair,¹⁹ in 108 cases with sanguineous discharge from the nipple, found malignancy in 47.2%. Judd²⁰ found 60% of patients with a serous or bloody discharge to have carcinoma, including three with Paget's disease.

The study of the cases with a bleeding nipple is, of course, directed to the discovery of the bleeding point. Palpation, compression of the breast, with identification of the duct from which the blood is discharged, probing of this duct, and transillumination are the common measures employed in this study. Injection with contrast media and x-ray study has been employed but is considered dangerous by some. Wedge-shaped excision of the area from which the blood is expressed or a simple mastectomy may have to be done to find the lesion. In 103 cases of bleeding nipple studied by Kilgore¹⁷ and associates, 31 refused surgery. In 10 who had surgery, no lesion was found in seven, although each of these had a simple mastectomy. Of the 31 refusing surgery, only 8 had been followed for 5 years or more. None of these had developed cancer.

Haagensen¹³ and associates state that if a patient develops a bloody or serous discharge from the nipple and careful palpation fails to reveal any tumor of the breast, it can be assumed that such a patient does not have cancer. The patient must, however, be examined at regular intervals. They observed that almost always an intraductal papilloma is eventually found. Cline²¹ and associates state that intraductal papillomata produce practically all instances of bleeding in the absence of a palpable tumor. In a discussion of the bleeding nipple, it is interesting to note that Winship and Godwin,²² in a study of material from the Garfield Memorial Hospital, observe that approximately 65% of all papillomata produce a nipple discharge of some type and that in 70% of these it is sanguineous or serosanguineous. Of interest, also, is the estimate by Geschickter²³ that about 10% of breast cancers have a bloody discharge. These, according to Haagensen,¹³ of course would be palpable.

Now what should be the treatment of the case with a bleeding nipple when no palpable tumor exists? Since in almost all cases it is due to epithelial hyperplasia or to a true papilloma, and since, if cancer exists, there

18. Hinchey, P. R.: Nipple Discharge, Ann. Surg. 113: 341, 1941.

19. Adair, Frank E.: Sanguineous Discharge from the Nipple and Its Significance in Relation to Cancer of the Breast, Ann. Surg. 91: 197, 1930.

20. Judd, E. S.: Intracanalicular Papillomas of the Breast, Journal Lancet 37: 141, 1917.

21. Cline, J. W., and Phillips, R. Westdahl: The Bleeding Nipple, Postgrad. Med. 9: 461, 1951.

22. Winship, Theodore, and Godwin, Bonita: Breast Papillomas, Mississippi Doctor 30: 296 (Feb.) 1953.

23. Geschickter, C. F.: Differential Diagnosis Between Malignant and Benign Breast Lesions, Postgrad. Med. 6: 41 (July) 1949.

is practically always a palpable tumor, one may, with reasonable safety, wait until a papilloma or a lump can be found if one can reexamine the patient repeatedly at intervals of 2 or 3 weeks. If one wishes maximum safety, simple mastectomy may be done. As in the cases of the palpable papilloma, the decision will depend largely on the attitude of the patient and the husband and the physician toward the loss of the breast.

While making this study of breast lesions, a review was made of 100 consecutive operations the author had done on the breasts of private patients. There were six patients who were operated upon twice during the period covered by the 100 operations, so that this is a report on only 94 patients. Bilateral operations done on the same date were considered as one operation.

TABLE I

Disease	No. Cases
Carcinoma	20
Fibroadenoma	16
Fibrocystic disease	48
Intraductal papilloma (including 5 classed as fibrocystic disease)	6
Accessory breast tissue	5
Angioma and lipoma	1
Epidermoid cyst	1
Lipoma	1
Tuberculoid granuloma	1
Gynecomastia	1
Fat necrosis	1
No lesion	4
Total	105

As will be noted, cancer was found at operation in 20% of the cases. Of more interest is the fact that in 4 of these the suspicion of cancer was minimal. The condition was thought to be fibrocystic disease in all of these. This makes an incidence of 1 cancer in 13 of the cases thought to be fibrocystic disease. Three of those were very early cases with no evidence of spread, but the fourth represents a type which, fortunately, is rare but which is very discouraging when it occurs. It was an 8 mm. carcinoma in a very large breast which, on radical mastectomy, revealed metastasis to all 10 of the lymph nodes found by the pathologist.

It is interesting to note, also, that three other cases of these 20 came for the purpose of having other operations done. It was during the preliminary physical check-up that the breast condition was found. One of these patients did not know she had anything

wrong with her breast. Another had noticed an irregularity in her breast, but had forgotten to mention it until she was told of it at the time of the preliminary examination. The third patient had known of the lump for a year but had, at the time she discovered it, been told by her physician, according to her statement, not to worry about it. Two of these caused only moderate suspicion of carcinoma before operation. They had no axillary metastasis. The patient who had known of the lump for a year caused great preoperative suspicion of cancer and 5 of 13 nodes found by the pathologist had metastatic carcinoma.

All of those 20 cases had radical mastectomies except one in whom a nodule in the neck was proven by frozen section, at the time of operation, to have metastatic tumor consistent with that found at the same time in the breast.

The one with tuberculoid granuloma was treated by radical mastectomy because of mistaken diagnosis on frozen section study. She was 79 years of age and has had no recurrence of the granulomatous lesion until now, 22 months after operation. Since the question of the cause and effect relationship between carcinoma and fibrocystic disease arises, it is interesting to note that, in 13 of the 20 cases of carcinoma, the lesion was in the upper outer quadrant, 3 in the upper inner quadrant, and 2 in each of the lower quadrants.

There were 43 breasts where fibrocystic disease was found and in which the record indicated the location of the lesion. In 33 of these, the lesion was in the upper outer quadrant, in 4 the upper inner, in 4 the lower outer, and in 2 the lower inner quadrant. The upper outer quadrant in this series, as in others, is the area for the predominant occurrence of both carcinoma and fibrocystic disease.

There were four cases of large cysts included in the series of fibrocystic disease. All of these were treated by excision. However, in one such case treated just previously to the period of this series, simple aspiration was done because a previous biopsy had been negative for malignancy.

In the series, 2 cases of solitary intraductal papilloma were removed by wedge-shaped excision.

There were three cases of intraductal hyperplasia and multiple papillomata which

were treated by simple mastectomies, two of which were bilateral. Simple mastectomies were done on three other patients in the series. One was a bilateral mastectomy for recurring fibrocystic disease in a patient with an unfavorable family history of cancer and the other two were unilateral mastectomies in patients who developed fibrocystic disease in the remaining breast after a radical mastectomy for carcinoma. We were influenced in the latter two cases by such findings as those of Kilgore²⁴ who states, after a study of the problem, that the evidence indicates that the woman who lives 5 years after a complete operation for cancer of the breast is about four times as likely to develop cancer of the second breast as is the previously normal woman of the same age to have cancer in either of her breasts (7 to 9% expectancy against 2% or less expectancy occurring in normal women).

The one case of gynecomastia is interesting in that the patient sought medical advice because of enlarging breasts. An x-ray of the chest on first consultation revealed a large tumor of the lung. The patient made a rapid demise associated with a rapidly enlarging liver. It was thought most likely that the damage to the liver prevented the destruction in the liver of estrogens and that because of this his estrogens gained the ascendancy sufficiently to stimulate breast growth.

The report of no lesion by the pathologist in 4 cases is disconcerting to the author. It is thought, however, that occasionally an area of fibrous tissue hyperplasia may stand out prominently in the breast and yet when it is removed the histology may not be very different from normal breast.

There was no unusual morbidity and no mortality in the 100 operations.

In summarizing, we may conclude as follows: 1. Three common lesions of the breast, fibroadenoma, fibrocystic disease and papillomata have basically the same etiology, that is, stimulation of the periductal, pericanalicular and periacinar fibrous tissue and the epithelium of the ducts and acini by estrogenic and luteal hormones in abnormal amounts and in abnormal proportions. 2. All three lesions may be the site of origin of

malignant change and are thus in a sense precancerous. 3. The treatment in all conditions is excision and immediate frozen tissue study, with preparation for radical mastectomy having been made. In the case of fibrocystic disease, excision is done only in case a "dominant" lump exists. The choice of operation in the case of the papilloma may be either local excision or simple mastectomy depending on several factors. 4. The case of the bleeding nipple is observed at frequent intervals until a papilloma is found or a wedge-shaped excision of the area from which the blood can be expressed is done, or, in some cases, a simple mastectomy is performed.

Gynecologic Diagnosis—It has been recognized for many years that urologic diagnosis through the urethra is one of the most accurate and satisfactory methods of any specialty. Major pathologic growths and diseases of the urinary tract are being removed and treated through the urethra, which is a much smaller canal than the vagina. The vaginal canal can likewise be used for more accurate diagnosis and for the removal and treatment of major pelvic disease, all to great advantage and satisfaction both to the patient and to the physician.

There was a time, and unfortunately there still is today in some quarters, when the surgeon suggests to the patient that he will perform a laparotomy and "sort of look around and see what is necessary to be done" rather than carry out a meticulous preoperative diagnostic study. This approach requires less mental and physical effort and is less time-consuming for him. To cap the climax, when no significant pathologic change is found, the same surgeon will then proceed with an appendectomy and perform some "piddling" surgery upon the ovaries, tubes, or uterus. Such procedures as puncture and resection of physiologic cysts or suspension of the uterus and ovaries are carried out to justify the laparotomy. The following is an example: A 38 year old white married para 3-0-3 recently consulted us complaining of intermittent attacks of left lower quadrant abdominal pain associated with a low grade fever, gaseous formation and occasional passage of bloody mucus from the rectum, of two years' duration. Seven months prior to her visit to us and 17 months after the onset of her trouble, she had undergone a pelvic laparotomy. She told us the surgeon had told her that she had a "six-in-one" operation—namely, an appendectomy, excision of cysts from both ovaries, bilateral ligation of tubes, suspension of the uterus, and hemorrhoidectomy. We remarked that she had received a lot of surgery for her money. She replied, "I did, doctor, but I still have my trouble!" She was found to have diverticulitis of the sigmoid.—Thomas, J. Florida M. A., Oct. '54.

24. Kilgore, A. R.: Incidence of Cancer in the Second Breast after Radical Removal of One Breast for Cancer, J. A. M. A. 77: 454, 1921.

HISTOPLASMOSIS

A ROENTGENOGRAPHIC SURVEY OF SOME ALABAMA COUNTIES

REPORT OF TWO CASES WITH PULMONARY CAVITATION

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Until fairly recent years histoplasmosis was thought to be a generalized disease that was virtually always fatal; however, it is well recognized now that the most common type of histoplasmosis is the asymptomatic, benign pulmonary form often leading to multiple pulmonary calcifications.¹ Between the two extremes pulmonary histoplasmosis may present in a wide variety of forms. The two most discrete variants are (a) the acute benign form, in which the patient presents all the characteristics of an acute pulmonary infection, but resolution occurs with the final picture resembling the multiple pulmonary calcifications of the asymptomatic form, and (b) the chronic progressive form which resembles a progressive pulmonary tuberculous process.

Relatively little is known concerning the epidemiology of histoplasmosis. The fungus has been found in rats and skunks,² mice and cats,³ and dogs.⁴ The organism has been cultured from soil and from streams that flowed through this soil.⁵ *H. capsulatum* has likewise been cultured from the gastrointestinal tract of persons without clinical evidence of the infection.⁶ Prior and Cole⁷

From the Montgomery Tuberculosis Sanatorium.

1. Furcolow, M. L.: Development of Calcification in Pulmonary Lesions Associated With Sensitivity to Histoplasmin, Pub. Health Rep. 1949, 64, 1363.

2. Emmons, C. W.; Morlan, H. B., and Hill, E. L.: Histoplasmosis in Rats and Skunks in Georgia, Pub. Health Rep. 1949, 64, 1423.

3. Olson, B. J.; Bell, J. A., and Emmons, C. W.: Studies on Histoplasmosis in a Rural County, Am. J. Pub. Health 1947, 37, 441.

4. De Monbreun, W. A.: The Dog as a Natural Host for *Histoplasma capsulatum*. Report of a Case of Histoplasmosis in the Animal, Am. J. Trop. Med. 1939, 19, 565.

5. Zeidberg, L. D.; Ajello, L.; Dillon, A., and Runyon, L. C.: Isolation of *Histoplasma capsulatum* from Soil, Am. J. Pub. Health 1952, 42, 930.

6. Raftery, A.: Subclinical Histoplasmosis—Gastrointestinal Histoplasmosis of Children, J. A. M. A. 1951, 145, 216.

7. Prior, J. A., and Cole, C. R.: Studies on the Communicability of Histoplasmosis, Am. Rev. Tuberc. 1951, 63, 538.

were able to recover *H. capsulatum* from the tick, *Dermacentor variabilis*, after the ticks had fed on a dog with known histoplasmosis. Epidemics have been associated with various foci, such as a silo, a cave, chickenhouses, an owl's nest, a storm cellar, and pigeon excreta in a water tower. The mode of infection in most of these epidemics appears to have been by inhalation of the organism.⁸ Direct infection from animal to man has been contemplated as another mode of infection, but this theory lacks substantiation in controlled experiments. However, the communicability of histoplasmosis from dog to dog has been shown.⁷ The worldwide ubiquity of histoplasmosis is well established, and it appears in the United States with greatest frequency in the Central Mississippi and the Ohio River Valley.⁹

The diagnosis of histoplasmosis depends on demonstration of the organism by smear, culture, animal inoculation, or tissue section. The diagnosis cannot be assumed even with a history of endemic exposure, a pulmonary lesion, and a high serologic titer as determined by the complement fixation test. This has been graphically demonstrated in at least two cases by Puckett¹⁰ in which the above criteria were present, but subsequently *M. tuberculosis* was demonstrated in the pulmonary lesions while all attempts to isolate *H. capsulatum* were futile. In the benign form of the disease it is rarely possible to demonstrate the fungus,¹¹ and in such instances one is forced to rely on roentgenographic evidence, the intradermal histoplas-

8. Grayston, J. T., and Furcolow, M. L.: The Occurrence of Histoplasmosis in Epidemics—Epidemiological Studies, Am. J. Pub. Health 1953, 43, Part I, 665.

9. Smith, D. T.: The Mycoses, Histoplasmosis, Cecil's Textbook of Medicine, 8th ed., W. B. Saunders Co., Philadelphia, 1951.

10. Puckett, T. F.: Pulmonary Histoplasmosis. A Study of Twenty-Two Cases With Identification of *H. capsulatum* in Resected Lesions, Am. Rev. Tuberc. 1953, 67, 453.

11. Lee, R. J., and Kirby, W. M. M.: Acute Benign Histoplasmosis, Am. Rev. Tuberc. 1954, 69, 625.

min test, and the serologic titer. The diagnosis of histoplasmosis may be further complicated by its occurrence with other serious conditions such as tuberculosis, syphilis, Hodgkin's disease,¹² and other mycotic diseases.

The intradermal test for histoplasmosis depends upon an allergic reaction, as does the tuberculin test. It may be negative in the early stages of the disease; it also may be negative in the disseminated form indicating a form of anergy, a situation which has been well established in tuberculosis. Though there are various opinions regarding the intradermal test, it seems to be rather specific for the benign form of the disease. The test should be performed simultaneously with the intradermal test for *Blastomyces dermatitidis* and *Coccidioides immitis* to avoid cross antigenicity.

The serologic tests used in the diagnosis of histoplasmosis have been of three types: complement fixation, collodian or red cell agglutination, and the precipitin test. The complement fixation test is by far the most widely used. The complement fixation test has been most helpful in diagnosing chronic cases but less reliable in the acute form of the disease.¹³ Salvin and Furcolow¹⁴ believe that the precipitin test has advantages over the complement fixation test in the early detection of the disease. The complement fixation test is further complicated by cross reaction with other fungi, particularly *B. dermatitidis*.¹⁵ Nevertheless, with proper interpretation, the serologic tests are a valuable adjunct in the diagnosis of histoplasmosis.

There is no characteristic roentgenographic finding typical of pulmonary histoplasmosis in its chronic or disseminated forms.

12. Hodgson, C. H.; Weed, L. A., and Clagett, O. H.: Pulmonary Histoplasmosis, J. A. M. A. 1951, 145, 807.

13. Monroe, J., and Kurung, J. M.: Histoplasmosis, With Review of the Literature and Report of a Case, Proved by Culture, With Involvement of the Upper Lobe of Each Lung Simulating Active Bilateral Apical Pulmonary Tuberculosis, Ann. Int. Med. 1953, 38, 206.

14. Salvin, S. B., and Furcolow, M. L.: Precipitins in Human Histoplasmosis, J. Lab. and Clin. Med. 1954, 43, 259.

15. Campbell, C. C., and Binkley, G. E.: Serologic Diagnosis With Respect to Histoplasmosis, Coccidioidomycosis, and Blastomycosis and the Problem of Cross Reactions, J. Lab. and Clin. Med. 1953, 42, 896.

The chest film may be suggestive of a wide variety of pathologic lesions, such as interstitial pneumonitis, lobular pneumonia, granulomata, abscesses, fibrosis, benign and malignant tumors, calcifications, foreign bodies, and particularly tuberculosis. The resemblance to tuberculosis may take the form of minimal, soft, unilateral infiltrates to generalized bilateral involvement. In a very few instances pulmonary cavitation has been reported due to *H. capsulatum*, and the report of two such additional cases will be included later in this paper. However, in the benign form of histoplasmosis there is a somewhat more reliable pattern of roentgenographic findings, this being disseminated pulmonary calcifications.¹⁶

There is no specific medical treatment for histoplasmosis,¹⁷ and fortunately the benign form requires none. Surgical extirpation of the pulmonary lesion, where such is possible, is the only definitive treatment.

The prognosis in other than the benign forms of the disease is an extremely variable one. Recovery from histoplasmosis, even in certain cases with rather extensive involvement, is gradually becoming a matter of record. The disease has been known to exist as a chronic infection for years, only to be followed by a rapidly fatal exacerbation.¹³

The differential diagnosis of chest roentgenograms is a constant problem and this is no less true in a tuberculosis hospital than elsewhere. Although the majority of patients admitted to this hospital are proven cases of tuberculosis prior to admission, there are a significant number of patients admitted who constitute "diagnostic problems." It was through the handling of such cases and through the interpretation of State survey roentgenograms that appreciation of the problem of histoplasmosis has developed.

The remainder of this paper is devoted to some of the findings gleaned from a study of histoplasmosis in Alabama.

During the period of this report (from January to September 1953), 29,229 chest films were reviewed. Of this number, 10-

16. Silverman, F. N.: Pulmonary Calcification—Tuberculosis, Histoplasmosis, Am. J. Roentgenol. 1950, 64, 747.

17. Charr, Robert: Histoplasmosis. Report of Two Cases, Am. Rev. Tuberc. 1953, 67, 376.



Plate I. Chest roentgenogram showing generalized granulomatosis characteristic of benign pulmonary histoplasmosis before calcification has occurred.

131 were random* 14 x 17 chest films from 44 of Alabama's 67 counties; 18,082 were 70 mm. routine survey films from Montgomery county; 1,016 were chest films not classifiable as to county of origin, obtained from private physicians within the State. Inspection of the roentgenograms revealed 65 cases of disseminated pulmonary calcification. For a county by county breakdown the reader is referred to figures I and II. The three isolated cases of disseminated calcifications as depicted in these figures, one each from Lawrence, Marshall, and Morgan counties, were special cases called to the authors' attention, and unfortunately no other films from these counties were available.

In each case of disseminated pulmonary calcification listed, it was felt that the roentgenograms were compatible with calcified benign pulmonary histoplasmosis (see plate II), considering, of course, the hazards of roentgenographic interpretations as previously mentioned.

Of the 18,082 films reviewed from Mont-

*These films were taken at the chest clinics of the respective County Health Departments and include films of known tuberculous contacts, known or suspected cases of tuberculosis, and routine chest survey films.

FIG. 1. DISTRIBUTION OF FILMS BY COUNTIES

Name of County	Number of Films	Number of Disseminated Calcifications
1. Autauga	104	2
2. Baldwin	90	
3. Barbour	50	
4. Bibb	159	
5. Blount	79	
6. Bullock	107	2
7. Chambers	62	
8. Cherokee	55	
9. Chilton	333	
10. Clarke	160	
11. Cleburne	25	
12. Coffee	87	
13. Coosa	63	
14. Covington	325	1
15. Crenshaw	5	
16. Cullman	826	2
17. Dallas	139	
18. DeKalb	345	1
19. Elmore	526	1
20. Escambia	73	
21. Geneva	35	
22. Greene	38	
23. Hale	57	
24. Henry	132	
25. Houston	252	1
26. Lawrence	*	1
27. Lee	265	
28. Macon	98	
29. Marengo	77	1
30. Marshall	*	1
31. Monroe	118	
32. Montgomery	20,426	36
33. Morgan	*	1
34. Perry	41	
35. Pike	340	2
36. Randolph	61	
37. Shelby	257	
38. St. Clair	354	
39. Sumter	58	1
40. Talladega	80	
41. Tallapoosa	1	
42. Tuscaloosa	667	6
43. Walker	64	
44. Winston	171	5
Miscellaneous	1,016	1
Total	29,229	65

*See explanation in text.

gomery county, thirty-six were interpreted as having multiple pulmonary calcifications. It was possible to skin test with histoplasmin approximately two-thirds of these suspected cases. In each case so tested, with only one exception, the intradermal test was recorded as positive.

Pitt¹⁸ reports from North Alabama that

18. Pitt, C. K.: Histoplasmosis and the Incidence of Positive Histoplasmin and Tuberculin Skin Tests in Children of North Alabama, South. M. J. 1952, 45, 1172.

Fig. 2. ALABAMA COUNTIES INVOLVED IN THIS STUDY

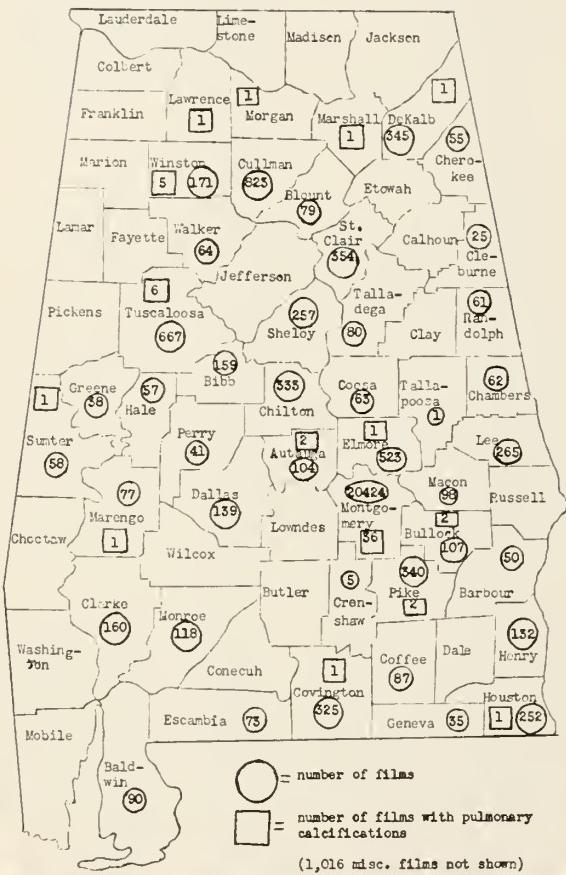


Plate II. Chest roentgenogram showing the disseminated pulmonary calcifications characteristic of healed benign pulmonary histoplasmosis.

mild and intermediate types of histoplasmosis are not rare in this section. His studies show that the incidence of histoplasmin sensitivity among adolescents is three times that of tuberculin sensitivity.

Peeples and Spence¹⁹ have reported that, prior to their one case in 1953, there were only four cases of pulmonary cavitation due to histoplasmosis reported in the literature. To our knowledge there has been no report since this one thereby making a total of five cases recorded. The following is a presentation of two cases of pulmonary histoplasmosis with resulting cavitation encountered at the Montgomery Tuberculosis Sanatorium.

CASE REPORT I

The patient, a twenty-seven year old white male, was admitted to this hospital on October 8, 1952 with a history of having had a "chronic cigarette cough" for many years. In 1951, being concerned about his cough, he had a chest x-ray and a tuberculin test. Both of these were reported as negative. The patient continued in his usual state of good health until August 1952 when he had a sudden febrile illness for which he visited his family physician. A chest plate at this time showed abnormal densities in the right apex, and the possibility of tuberculosis or primary atypical pneumonia was considered. Several sputum smears for acid fast bacilli were reported as negative, as were cultures for acid fast bacilli which were subsequently reported. In the interval he was treated with antibiotics and seemed to show slight improvement. His chronic productive cough persisted, however, and on two occasions he noticed small amounts of blood in his sputum. Follow-up roentgenograms showed slight but fairly definite evidence of progression of disease, and for this reason the patient was referred to this Sanatorium for evaluation. The patient had lived in Alabama all of his life, and his only residence outside the area was in the course of army duty in World War II when he was stationed in Italy from March 1944 to November 1945, and for one year from August 1949 to September 1950 when he resided in Houston, Texas. He had no known exposure to tuberculosis. The past history is non-contributory to the present illness.

Admission physical examination revealed a well-developed, well-nourished, white

19. Peeples, W. J., and Spence, M. J.: Pulmonary Cavitation Due to *Histoplasma capsulatum*, Am. Rev. Tuberc. 1954, 69, 111.

male who did not appear acutely or chronically ill. Height, 70"; weight, 130 pounds; the systolic blood pressure 100, and the diastolic 80 in mm. of mercury; pulse, 80 per minute and regular; temperature, 98.6° F.; and respiration, 20 per minute. The remainder of the physical examination revealed no evidence of pathology.

The admission chest film (see plate III), when compared with the previous films described above, revealed further progression in his disease in that evidence of cavitation was noted in the right upper lobe.



Plate III. Chest roentgenogram (10-9-52) of the patient in case report I, showing cavitation due to histoplasmosis in the right upper lobe.

Admission laboratory work: Hemogram and urinalysis within normal limits; feces, negative for ova and parasites; and blood Kahn, negative. A sputum smear for acid fast bacilli was negative. The intradermal test (O. T.) was negative in all three strengths. The 1:1000 tuberculin test was repeated, using tuberculin which was also given at the same time to a known positive reactor. The patient in this case reacted negatively a second time whereas the control reacted positively. The coccidioidin test was very faintly positive but the histoplasmin test was strongly positive.

Following this, the patient had a total of five sputum concentrations, seven sputum cultures, and three cultures from gastric washings, all of which were reported negative for acid fast bacilli.

On October 21, sputum specimens were collected and sent to one of us (R. C. H.) for examination. The cell block of the sputum was reported as negative for tumor cells but positive for *H. capsulatum*. Stained sputum smears, using both hematoxylin and eosin, and periodic-acid Schiff methods were also reported as showing *H. capsulatum*. At the same time the sputum was cultured on Sabouraud's medium, and approximately four weeks later the culture was reported positive for *Histoplasma capsulatum*.

Also, on October 22, sputum samples were sent to the National Institute of Health, Bethesda, Maryland, and to the Veteran's Administration Hospital, Oteen, North Carolina.

The National Institute of Health reported on December 16, 1952 that *H. capsulatum* was identified on culture made from mice inoculated with the sputum sample. The other sputum sent to the Veteran's Administration Hospital was reported positive for *H. capsulatum* by smear.

A blood specimen submitted to an outlying laboratory for complement fixation test was unfortunately misplaced by this laboratory before it could be completed.

On October 27, 1952, after the cell block and one sputum smear had been reported

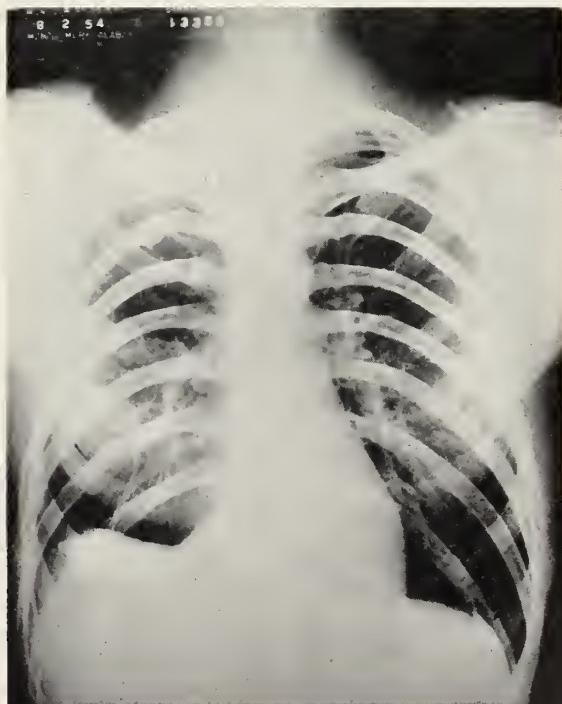


Plate IV. Chest roentgenogram of the patient in case report I, taken 22 months following right upper lobectomy, showing no evidence of recurrence of histoplasmosis.

positive for *H. capsulatum*, the patient was begun on oral doses of undecylenic acid which were continued for only two weeks. On October 27, 1952 a bronchoscopy was performed which revealed no abnormalities of the tracheobronchial tree. X-ray of the patient's chest indicated no significant changes in the chest plate since admission, and it was decided after surgical consultation that right upper lobectomy should be undertaken without delay. The lobectomy was performed on October 31, 1952 with the patient making an uneventful recovery. The portion of lung removed was submitted for pathologic examination which was subsequently reported as "pulmonary histoplasmosis with cavitation, granulomatous reaction and necrosis." The patient was discharged from the Sanatorium on November 9, 1952 with the recommendation that he follow the advice of his private physician. The patient appears to be doing well with no evidence of recurrence some twenty-two months since lobectomy was performed (see plate IV).

CASE REPORT II

The patient, a fifty-seven year old white male, was admitted to the Montgomery Tuberculosis Sanatorium on July 30, 1952 complaining chiefly of inability to gain weight. He attributed this to third degree burns he received in December 1950. The burns involved about ten per cent of his body surface in the infra-gluteal and posterior thigh regions. He was hospitalized in an Alabama hospital some six months while receiving treatment for these burns. The patient had continually gained weight during the year following his injury but stated he was still ten to fifteen pounds below his normal weight of 115-120 pounds. During the six months prior to admission he had a slight persistent cough productive of about two teaspoonfuls of "brown, tobacco juice"-colored mucoid sputum per day. For one month prior to admission he coughed up moderate amounts of mucopurulent sputum.

Because of his failure to gain weight the patient visited his local physician on July 22, 1952. Laboratory work at this time revealed the following: Hemoglobin, 78.9%; R. B. C.'s, 4,360,000; W. B. C.'s, 12,000 with 6% bands, 78% polys., 15% lymphs., and 1% eosinophiles; urinalysis, within normal limits; blood sugar, 100 mgm. %; total protein, 5.8 grams; albumin, 3.84 grams %; globulin, 1.96 grams %; cephalin flocculation, nega-

tive. Two sputum smears were negative for acid fast bacilli and several cultures were planted at this time. A chest film revealed a heavy mottled density in the right superior one-third of the lung field with an area of increased transmission of ray in the medial superior one-third.

Because of his roentgenographic findings and his respiratory symptoms the patient was referred to this hospital for evaluation. So far as was known the patient had resided in Alabama all of his life. The past history was not pertinent to the present illness.

Admission physical examination revealed an elderly white male who was of small body build and poorly nourished and who appeared chronically ill. Height, 67½"; weight, 94 pounds; the systolic blood pressure 120, the diastolic 80 in mm. of mercury; pulse, 80 per minute and regular; temperature, 98.6° F.; and respiration, 20 per minute.

Extensive scar formation was noted over the previously burned area. Auscultation of the heart revealed a grade II, rather rough systolic murmur at the apex. Fine inspiratory rales were audible over the left chest from the base to the infrascapular region. The remainder of the physical examination was essentially within normal limits.

Admission laboratory work revealed the following: Hemoglobin, 11.5 grams; R. B. C.'s, 3,950,000; W. B. C.'s, 12,000 with a normal differential; urinalysis, within normal limits; feces, negative for ova and parasites; and the blood Kahn, negative. A sputum smear for acid fast bacilli was also negative. The intradermal tests with coccidioidin, histoplasmin and tuberculin (O. T.) were all recorded as strongly positive.

The admission chest film, when compared with the previous films, showed retraction upward of the pathology in the right lung apparently as a result of atelectasis or fibrosis. The rather peculiar area of increased transmission of ray in the inner lung field now contained a fluid level (see plate V).

Following admission the patient had a total of six sputum smears, seven cultures from sputum, and three cultures from gastric washings all of which were reported negative for acid fast bacilli.

During the next month extensive diagnostic sputum examinations, as in the aforementioned case, were conducted. The results were essentially the same as in the



Plate V. Chest roentgenogram (7-20-52) of the patient in case report II, showing a large area of cavitation containing a fluid level in the right upper lung field due to histoplasmosis.

previous case except one sputum specimen was reported negative by smear for *H. capsulatum*. Subsequent to this, however, a cell block of the sputum (see plate VI) and a sputum culture were reported as showing *H. capsulatum* by one of us (R. C. H.) and a sputum smear was also reported positive by the Veteran's Administration Hospital in Oteen, North Carolina.

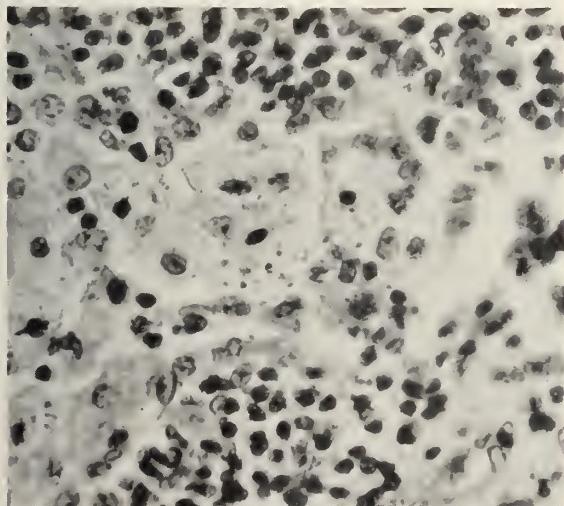


Plate VI. Photomicrograph showing the intracellular forms of *H. capsulatum*. This slide (H. and E. stain) was made from a cell block of the patient's sputum in case report II. The central group of large cells are macrophages containing the encapsulated organisms within their cytoplasm.

Again the blood samples sent to another laboratory for agglutination studies were misplaced.

The patient was begun on oral doses of undecylenic acid. Despite this, however, follow-up chest films revealed evidence of continuous spread of his disease, and lobectomy was not thought warranted in the presence of this fact. On October 13, 1952 a chest film showed mottled densities flaring from the left hilar region, in addition to the previously noted changes on the right. However, by November 24, 1952, although the right lung field remained essentially stable, the densities in the left had largely disappeared, and only heavy vascular markings remained in this area. A bronchoscopy performed on November 25, 1952 showed no abnormalities. It was then decided, in view of the regression of the inflammatory process noted in the recent chest films and the fair clinical condition of the patient, that a right upper lobectomy should be performed.

On November 28, 1952 the right upper lobe and the superior segment of the lower lobe were removed and submitted for pathologic examination. The surgery was technically very difficult due to the very dense and tenacious pleural adhesions, particularly



Plate VII. Chest roentgenograms showing a well defined area of cavitation in the left apex. This lesion was proven to be a bronchogenic carcinoma at thoracotomy. Note the similarity to the lesions in plate VIII and plate III.

ly surrounding the diseased portion of the lower lobe. During the attempt to develop a line of fissure between the upper and middle lobe the main pulmonary vein was inadvertently torn. The defect was closed satisfactorily with interrupted fine silk sutures and the blood loss was not excessive. The patient seemed to tolerate the procedure satisfactorily and he was returned to the ward in fair condition.

The postoperative course was satisfactory for only one day. The patient bled into his pleural space to some extent over the entire postoperative period. This resulted in an atelectasis in the remaining lung on the right followed by the formation of a bronchopleural fistula. It was thought that the patient could not tolerate any corrective surgery at this time. On the fourth postoperative day it was necessary to do a tracheotomy. This resulted in improved aeration and a decrease in the mediastinal shift. However, he continued to bleed repeatedly into the right chest and finally on the sixteenth postoperative day had a massive hemorrhage which was fatal. This hemorrhage probably resulted from a breakdown of the repair of the defect in the pulmonary vein which was produced at operation. Per-

mission for an autopsy could not be obtained.

The pathologic report of the section of lung tissue removed at operation was interpreted as histoplasmosis with cavitation and atelectasis.

DISCUSSION

The authors well realize that much of the material presented concerning miliary calcifications in Alabama is inadequate and that it does not lend itself to statistical analysis, and this to be sure is regrettable. However, if the reader becomes cognizant, if he were not already, that pulmonary histoplasmosis is not a rare finding in Alabama and that histoplasmosis deserves a prominent consideration in diseases of the chest when the diagnosis is not readily determined, the purpose of this paper will have been accomplished.

It should be stressed again that there is no typical roentgenographic pattern for the chronic progressive form of histoplasmosis. The diagnosis can only be confirmed in such cases by demonstration of the organism. However, it should be remembered that the intradermal test, a simple inexpensive procedure, may provide an important clue in ultimately arriving at a correct diagnosis.

Plates III, VII, and VIII show the close similarity in roentgenographic findings that can exist between proven histoplasmosis, carcinoma, and tuberculosis.

Pulmonary histoplasmosis is not generally thought of as a surgical condition, because the general tendency of the disease is to disseminate. However, surgical intervention in suitable cases definitely has its merits, and the popularity of such definitive surgery is steadily increasing. In retrospect the advantages of lobectomy in the first case seemed unequivocal. In the second case it was thought that resection was the only recourse since it was the consensus that the lesion had been, and would continue to be, a progressive one. Regarding the spread of the disease to the left lung, it was hoped that this lesion might in time stabilize itself if the original focus from which the process undoubtedly spread could be eliminated. There seems to be no evidence to indicate that further spread would result from surgical removal of the localized process.²⁰ This



Plate VIII. Chest roentgenogram showing a well defined area of cavitation in the right apex. This was a proven case of tuberculosis. Note the similarity to the lesions in plate VII and plate III.

20. Forsee, J. H.; Puckett, T. F., and Hogman, F. E.: Surgical Considerations in Focalized Pulmonary Histoplasmosis, *J. Thoracic Surg.* 1953, 26, 131.

is admittedly only speculation in this case since the patient did not withstand the lobectomy.

SUMMARY

A brief resume' concerning the pathology, epidemiology, diagnosis, and treatment of histoplasmosis is presented. A review of 29,229 chest films from forty-four Alabama counties showed a total of sixty-five films which were compatible with benign pul-

monary calcification (so called miliary type) probably due to histoplasmosis. Also reports of two cases of pulmonary cavitation due to histoplasmosis are included.

ACKNOWLEDGEMENTS

Grateful appreciation is expressed to Dr. John Moss, Mobile, Alabama, who contributed significantly to the material presented in this paper.

THE MANAGEMENT OF ANEMIA IN GENERAL PRACTICE

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The term anemia, as it is generally used in clinical medicine, refers to a reduction below normal in the number of red blood cells per cubic millimeter, the quantity of hemoglobin, and the volume of packed red blood cells per one hundred cc. of blood.

Today, I would like for you to consider anemia simply as a clinical manifestation of some underlying disease or, more commonly, a deficiency in the body of certain specific substances required for the formation of normal red blood cells.

There are many different ways in which anemia may be classified. I shall limit my remarks to what I term the clinical classification of anemia. This can be broken down into four single groups. These groups are: (1) blood loss, (2) decreased blood production, (3) hemolytic phenomena, and (4) congenital defective red blood cells.

A preliminary consideration to any type of treatment is careful investigation of the anemic patient. Anemia should be regarded as a symptom and not as a disease. When the physician prescribes treatment for anemia without first determining the cause, he is indulging in dangerous symptomatic treatment. There are too many of us today who are guilty of wantonly engaging in shotgun therapy of anemia.

The indiscriminate use of certain preparations containing liver, stomach, B₁₂, folic acid, iron, various minerals, as well as all of the vitamins, is to be decried. It is true that some anemias will respond to this type of treatment. At the same time the diagnosis

of the underlying disease is usually not made and the patient has not obtained maximum benefit which would have resulted if a simpler preparation containing these specific substances had been employed. It is a sad but true fact that some pharmaceutical houses have detailed these "omnipotent products" so as to "spare the busy practitioner" the trouble of seeking out a specific cause for the anemia. The patient on the other hand pays ten to fifteen times more for these concentrates than for a simpler preparation which contains his specific deficiency factor. Would you want your patients to know that the medications which you have prescribed, which cost so much, contain substances which by no stretch of the imagination could produce a favorable effect on their anemia? From the purely practical standpoint of therapy, there should never be any question about what hematinic preparation should be used in various anemic problems. The great bulk of all the anemias amenable to treatment fall in the group of hypochromic or iron deficiency anemias, where there has been excessive blood loss.

HYPOCROMIC ANEMIA

Morphologically, the chief characteristic of iron deficiency anemia is hypochromasia. Often there is microcytosis, but the cells may vary from microcytic to normocytic. The mean corpuscular volume, as well as the mean corpuscular hemoglobin concentration, is markedly decreased.

A detailed history, including a systematic inquiry into the menstrual history, pregnancies and detailed information as to the possible loss of blood by any other route, must be obtained. In women, the history of men-

orrhagia, miscarriages and pregnancies makes the problem of hypochromic anemia a simple one. In the absence of excessive blood loss, hypochromic anemia in women, as in men, becomes a problem of excluding, by all possible means, the presence of a bleeding lesion. Therefore, it behooves us to investigate, by every means possible, those parts of the body which are known to harbor lesions capable of producing a chronic blood loss. We must always exclude peptic ulcer and malignancies of the intestinal and genito-urinary tracts, as well as benign polyps and hemorrhoids.

Hypochromic anemia, secondary to simple iron deficiency, is exceedingly rare in this country. We know that an average, well balanced diet will contain between ten and fifteen milligrams of iron daily; and approximately ten to twenty per cent of this amount is absorbed. In normal individuals the maximum excretion of iron does not exceed one milligram daily, which is lost as a result of the destruction of iron-containing cells. Thus we can see that ordinarily there is no need to expect an iron deficiency anemia to develop except as a result of excessive blood loss.

After the cause of the iron deficiency anemia is ascertained, the problem of treatment must be considered. This has two aspects: (1) elimination of the cause, if possible, and (2) specific therapy to relieve the iron deficiency. The first aspect is not considered to be in the realm of this presentation. The latter aspect consists of the administration of a ferrous salt by the oral route. This may be in the form of ferrous sulfate, carbonate or gluconate. It has been my practice to administer no more than one gram daily, this amount being divided equally with or following each meal. There is no indication to administer any other type of medication to patients with an iron deficiency anemia. The liver, B_{12} , folic acid, and other hematinic preparations will not produce any beneficial effects and will only serve to provide a way for the patient to throw away his money.

Although hydrochloric acid has been recommended for achlorhydric patients who have a hypochromic anemia, there is no evidence that this substance produces an increase in the absorption of iron. In very rare instances we observe patients who neither tolerate nor respond to the oral administration of iron. We have within the

past few years had available preparations of saccharated iron oxide which can be administered intravenously with safety. The indications for the intravenous use of these preparations is limited to those patients who developed severe gastrointestinal symptoms while taking oral iron or who, following long courses of oral iron, failed to show the expected hematinic response. It has only been on very rare occasions that I have found intravenous iron medication indicated. I have followed the formula of allowing approximately twenty-five milligrams of metallic iron for each one per cent deficiency in the hemoglobin. With intravenous iron medication, the increase in the concentration of hemoglobin and subjective improvement, indicated by a feeling of general well being, occurs surprisingly rapidly.

The duration of oral iron therapy will depend upon the severity of the iron deficiency anemia. It is usually not necessary to continue medication longer than eight weeks except in those occasional cases of simple menorrhagia, where there is no surgical procedure indicated. In these cases it is suggested that iron be administered periodically for an indefinite period in order to maintain normal values of hemoglobin.

ANEMIAS DUE TO DECREASED BLOOD PRODUCTION

Anemias in this group comprise a relatively small percentage of those anemias which are known to be amenable to medical treatment. Pernicious anemia and related megaloblastic anemias fall into this category. A deficiency of B_{12} and folic acid has been shown to cause a greater decrease in the number of cells than in hemoglobin or the volume of packed cells. This is due to the fact that the majority of the red corpuscles which are produced are larger than normal, thus the term "macrocytic anemia." Morphologically, the cells are deep staining and large and the mean corpuscular volume and the mean corpuscular hemoglobin concentration are greatly decreased.

A careful history may be rewarding and the correct diagnosis may be suspected before the blood study is carried out. Weakness, sore tongue, and numbness or tingling of the extremities are common initial complaints. The diagnosis, however, will always depend upon the presence of achlorhydria following histamine injection and upon the demonstration of certain changes in the blood picture; that is, macrocytosis,

right shifted multilobulated neutrophils and changes in the marrow consisting of hyperplasia, with particular increase in the number of nucleated red blood cells of a type known as megaloblasts.

Only after the diagnosis of pernicious anemia has been firmly established can treatment be considered. While folic acid will produce a satisfactory hematologic remission and conversion of the marrow from a megaloblastic to a normoblastic state, it is not felt that it should be used in the therapy of pernicious anemia as a good many patients will have a hematologic relapse. Furthermore, it has been shown that few, if any, of the neurologic manifestations of pernicious anemia can be favorably affected by folic acid.

From 1926, when liver therapy was first demonstrated to be effective in the control of pernicious anemia, until the present time, parenteral administration of liver extracts has successfully controlled both the hematologic and the neurologic manifestations of this disorder. However, since the isolation of B_{12} in 1948, there has been a gradual swing to the use of this substance in the treatment of pernicious anemia. There are certain advantages over the use of liver extracts: (1) the dosage can be more accurately regulated as it is a purified crystalline preparation of known strength; (2) it can be used in instances of sensitivity to the liver extract, and (3) it is more economical. There is considerable variation in the amounts of crystalline B_{12} believed by various observers to be necessary for adequate treatment. I have found that in relapse a dosage of fifty micrograms daily, for one week, followed by fifty micrograms every two weeks as a maintenance dose, will usually always provide an adequate therapeutic program. In some cases of pernicious anemia which are complicated by severe neurologic manifestations, this dosage will be inadequate and during the initial treatment will have to be increased.

There are many oral preparations designed for the treatment of pernicious anemia. They are all inefficient in that large amounts are required and the cost to the patient is much higher than that of parenteral B_{12} or liver extracts. It cannot be denied that liver stomach preparations or B_{12} , when given in sufficient amounts by the oral route, can control pernicious anemia. Iron is never indicated in pernicious anemia

unless there has been an associated loss of blood. Folic acid, while not contraindicated, is not necessary and when used alone constitutes inadequate therapy, as noted above.

Megaloblastic anemia of pregnancy and the puerperium and anemia associated with intestinal disease, such as strictures and fistulae, as well as certain nutritional macrocytic anemias of the tropics, often have a prompt and excellent recovery following the use of folic acid. Megaloblastic anemia following total gastrectomy and occasional megaloblastic anemias of infancy will likewise show a marked remission when placed on folic acid therapy. In practically all of these above conditions, treatment can be discontinued after the anemia is corrected. The relative rarity of any of these conditions, however, makes them assume a role primarily of academic interest. Anemia associated with various types of malignant lesions, particularly that secondary to metastatic disease of the bone marrow, diseases of the reticulo-endothelial systems, such as leukemias and aplastic anemia, and diseases in which there is an interference with a metabolism of hemoglobin, such as is seen in chronic nephritis and infections, do not respond to any of the hematinic preparations that we have discussed today.

In conclusion, I would like to emphasize again that by far the most common type of anemia seen is that of hypochromic, iron deficiency, anemia which is due to blood loss. This type of anemia will respond to iron and to iron alone. Liver extract, vitamin B_{12} , and folic acid, as well as other substances commonly used in the treatment of this type of anemia, have absolutely no beneficial effects. Pernicious anemia can best be managed by the parenteral administration of either liver or vitamin B_{12} . Folic acid has no role in the successful management of this problem. Megaloblastic anemias other than pernicious anemia will in general respond to the administration of folic acid and will usually be refractive to other types of medication. Dr. Frank Heck, at the Mayo Clinic, has said that a useful maxim is: "Determine the type of anemia present, give only the medicament indicated; do not mix the treatment." If we all follow this advice, our patients will derive more benefit at far less cost.

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DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

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THE MONTH IN WASHINGTON

Although the elections back home are more stimulating than Washington doings these fall weeks, some of the quiet planning going on at the Pentagon should be of more than passing interest to physicians, young and old. The objectives are familiar: first, to insure a steady supply of physicians for the services; second, to improve the medical care program for military dependents. Primarily responsible for working things out are Dr. Frank Berry, Assistant Secretary of Defense for medical affairs, and the officers assisting him.

To insure that the services will get the physicians they need after the scheduled expiration of the Doctor Draft Act next July 1 —without disrupting residency training—a plan bearing the formidable name of the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program has been put into effect. It applies only to interns who have had no prior military service, and who therefore have a two-year obligation for service under the regular draft.

The plan's first deadline was October 10. By that time these young physicians were to have sent in to the Defense Department a form with the following information: Their first, second, and third choices among the services, whether they wanted additional deferment for residencies and if so choice of hospitals, and the preferred specialties. Any in this group who do not apply for reserve commissions will be subject to the regular draft, will not be considered for residency deferments, and will not have a choice of services.

There is another problem involved. It is estimated that about half of the interns will want residency deferments. However, not more than a quarter can be deferred if the Army, Navy, and Air Force are to get their quotas of physicians. This is being resolved by a lottery. Those winning deferments will stay in the reserves, and be called up for duty as their specialties are needed after the completion of their residencies. Those losing out will be called as needed at the end of their internships. The 50% not asking for deferments will be allowed a choice of the month to be called up, a privilege not accorded the others.

On the dependent medical care program, Dr. Berry's annual report discloses that the

Department is all set to put the expanded plan into operation, should Congress enact it. An implementing directive has been drawn up, a tentative fee schedule modeled on the VA "Guide for Medical Services" has been prepared, and a uniform "Military Dependent Identification Card" has been developed and placed in limited use by the Navy and Air Force.

A dependent care bill was introduced last session, but not pressed by the Defense Department. It provides a uniform program for the three services, with dependents defined and the extent of care limited. It also would have the military medical departments take care of all the dependents they could handle, with only the remainder going to private physicians and hospitals. The American Medical Association believes this should be reversed, with emphasis on private, non-government care for dependents.

The Defense Department is interested in other devices to keep up the quality as well as the number of its physicians. One of these is a scholarship program, which would require one year of military service for each scholarship year. Because regular draft time could be served out this way, any scholarship contract would call for a minimum of three years' active duty. The Department has high hopes that this program will be authorized by the next Congress. It also is hopeful that, once in operation, the scholarship contracts would result in more young physicians joining the regular Army.

Meanwhile the Hoover Commission on Organization of the Executive Branch and the Kestnbaum Commission on Intergovernmental Relations continue with their studies and report-writing, efforts that now are definitely unspectacular but that ultimately could mean important changes in the government's medical programs.

The Hoover Medical Task Force is nearing the end of its long review of all federal medical operations. Its recommendations will be submitted to the full commission for consideration in the commission's report to the President, due at the White House next May.

The Kestnbaum commission's work of greatest medical interest is the study of health grants-in-aid, on which a special committee has just completed its report. The full commission is scheduled to report back to Congress by next March.

MORE DOCTORS FOR AMERICA

Critics of the medical profession who have been wildly claiming an alleged shortage of doctors and a scarcity of teaching facilities will find no comfort in the latest annual report on medical education in the United States.

That report, by the American Medical Association, tells a heartening story of continued progress and expansion to produce an ever-increasing supply of well-trained physicians dedicated to the welfare of their patients. Among the highlights are these facts:

The number of doctors is at a record low ratio of one for every 730 persons, a proportion exceeded only by Israel, which has an abnormal number of refugee physicians.

The nation's medical schools have record total enrollments and graduating classes and the largest freshman class.

Ten new four-year medical schools are scheduled to begin operation within the next five to six years, and three more are under consideration.

The expansion bears out the opinion of many medical education experts that the big problem in the near future may be a shortage of well-qualified applicants rather than a shortage of teaching facilities.

Young people will be interested that only 21 per cent of the freshmen entering medical school last fall had "A" averages in their premedical studies, 69 per cent had "B" averages and 10 per cent had "C" averages.

In other words, they don't have to be "grinds," bookworms or Phi Beta Kappas to get into medical school. Most young people who have the character and a sincere desire to serve their fellowmen as physicians have an excellent chance of entering medical school.

CANCER TREATMENT CLAIMS

Premature claims for various medical procedures in cancer treatment, including the scientifically unfounded "cures" attributed to "supervoltage" radiation, will only produce tragic disappointment among many persons suffering from cancer.

This is the warning of a noted medical specialist in radiation therapy, Dr. L. Henry Garland, of San Francisco. In a recent issue of the American College of Radiology

Monthly News Letter, he has leveled severe criticism at those persons responsible for the grandiose, misleading claims.

The College is a nation-wide organization of radiologists, those physicians who specialize in the diagnosis and treatment of disease through use of x-ray, radium and other radioactive substances.

"There is understandable interest on the part of the public in apparent new methods for the diagnosis and therapy of cancer," Dr. Garland pointed out. "The daily press, the weekly magazines, and the monthly periodicals are all avid for such items," he added.

"Unfortunately, these items are frequently written by physicians or science writers with little actual experience in the long term care of cancer and with little actual knowledge of the variations in the natural history of the disease in its many forms," the noted San Francisco radiologist went on.

"A small number of these articles are in the nature of recurring publicity or propaganda from institutions or organizations seeking public funds for their existence," Dr. Garland continued.

Pointing to several fallacies about "super-voltage" treatment of cancer, Dr. Garland pointed out that the results of treatment with radiation depend more on the type of cancer treated than the alleged "super" effects from any particular voltage.

These garbled accounts of radiation treatment inflict fiendish torture regularly on cancer patients and their families as each new effort in this field is seized upon by some for dubious purposes, said Dr. Garland.

Most responsible science writers, Dr. Garland pointed out, are conscious of these basic points:

1. The skill of the doctor or surgeon who treats the cancer patient is of greater importance than the treatment method employed. It is the surgeon, not the knife, that cures cancer; it is the radiation therapist, not any particular voltage, that cures cancer.

2. There is no proved qualitative difference in terms of cancer destructive effect in the various voltages currently available.

3. There is no justification to date for claims of improved cure rates by use of "su-

pervoltage" radioactive materials or combinations of these agents. These developments constitute merely additional tools in the radiotherapist's armamentarium.

"The big hope in cancer control is cancer prevention; until that happy day, progress will be made by the availability of better trained radiotherapists, careful research in the entire field of radiobiology, and better general care of the cancer patient," concluded Dr. Garland.

CAREFUL X-RAY STUDIES NEEDED

Careful and accurate analysis of the roentgenogram of the abdomen has proved a valuable method of early diagnosis in acute obstruction of the small intestine in infants and children, two Mayo Clinic doctors report in the September issue of the *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*.

Making the report, which is based on 66 children ranging in age from a few minutes to 15 years, are Dr. John R. Hodgson, a radiologist, and Dr. Malcolm B. Dockerty, a pathologist.

"Because air normally traverses the entire gastrointestinal tract rapidly, its accumulation always suggests intestinal stasis; if this pathway is blocked, the accumulation of air is clearly visible on the abdominal roentgenogram," the authors report.

"This finding is present before clinical signs are clear," they add.

However, the authors agree that numerous conditions other than intestinal stasis may produce air-fluid levels on the abdominal roentgenogram. For this reason, they suggest that a positive diagnosis of intestinal obstruction must always be supported by positive clinical findings. When the diagnosis is in doubt, they advise that serial roentgenograms will frequently settle the issue.

"In our series of 66 infants and children, the roentgenogram of the abdomen proved an accurate and simple means of early diagnosis, and more general use of this diagnostic aid should be encouraged," they conclude.

NEXT MEETING OF THE ASSOCIATION MONTGOMERY APRIL 21, 22, 23, 1955
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THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

SECOND INSTALLMENT

W. A. Dozier, Jr.
Director of Public Relations

Last month's article quoted quite extensively from Mr. William L. McGrath's report on the International Labor Conference which was held in Geneva, Switzerland in June. Mr. McGrath's main thesis in his report was the return of the Russians, their attempts to take over the conference, and the danger of their doing just this.

Let us in this article, however, turn our attention to the Bricker Amendment which the 83rd Congress killed by one vote. In a nutshell the proposal would have forbidden legislation by treaty when the treaty encompassed ideas contrary to the law of our country. Under our present law treaties have been declared to be the supreme law of the land. And how are treaties ratified? By the President and the Senate only. Thus the House of Representatives, which under our normal system must also pass on any legislation, is completely eliminated.

Let us now take into consideration some quotations lifted from Mr. McGrath's report. Mr. McGrath, himself, states, "The great majority of the nations of the world have nationalized industries."

During the discussions of the conference, Mr. McGrath reports that the following statements were made. A government delegate of Burma stated, "We in Burma are pledged to socialism. We are working for an all-round development leading to a Welfare State.... The Government of the Union of Burma is itself establishing a number of factories."

A government delegate from the Argentine said, "In our country . . . the State had to undertake the operation of the railways, the telephone system, etc. The State carries on activities side by side with private employers in the fields of shipping, air transport, oil production, banking, insurance, etc. No one can today question the fact that the State may act as an employer."

Further, a workers' delegate from India made this very illuminating statement: "By excluding the nationalized sectors you will be excluding all those people who believe in

Socialism. What is the panacea which has been held forth by Europe and the western world against Communism? Socialism!"

And a workers' delegate from Pakistan had this to say: "I do not for one minute accept the employers' stand. . . . The term 'a free man engaging in free enterprise' has been mentioned. I do not understand nor do I accept free enterprise. Free from what? Free to exploit, free to make any amount of profits? It does not make sense to say that the employers' group must only consist of private employers."

Now, what is the purpose of this article? Simply this. From the above quotations it is easy to see the thinking of too many of the delegates with whom the U. S. is "playing footsie" in the I. L. O. Conventions (treaties) passed by the I. L. O. do not have to go to but one house of our Congress. The danger inherent in this whole picture need not be labored. It is clear.

Better Teamwork in Medical Insurance—In many metropolitan areas 75 per cent to 80 per cent of all patients seen have insurance. An investigation into this aspect of medical practice indicates that some dissatisfaction exists on the part of the patient, the doctor and the insurance company. When the cause of this discontent is more closely examined one common denominator seems to appear. This is the lack of teamwork between the medical profession and the insurance companies.

Doctors feel that the insurance forms are cumbersome and that companies will frequently do everything possible to avoid paying a justifiable claim. There is abundant evidence to support the claim that patients do not understand the type of insurance they have. They feel that their insurance does not cover what they thought it covered, and that it does not pay the amount of money they thought it would. Finally the insurance companies feel that they are treading on thin ice, because they have not been able to have frank discussions with members of the medical profession. When urged they will admit that they cannot write the type of medical coverage which they desire because they cannot be certain that it will be administered properly by the medical profession and that fair fees and reports will be rendered. When one considers the importance of insurance in medical practice today, it seems that these relatively minor flaws could be settled by better teamwork.—Editorial, *J. M. A. Georgia*, Oct. '54.

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.
State Health Officer

EPILEPSY

THE DISEASE AND ITS RECOGNITION

Contributed by
Nadine Pitts
Director

Division of Public Health Education

What would you do if you chanced to see an acquaintance or a stranger have an epileptic seizure? Would you stand by helpless, filled with instinctive horror, apprehension and fear at the sight of a human body contorted by uncontrollable jerky, violent movements? Or would you view the victim with compassion, move to lend a helping hand in lowering him to the floor, and perhaps place some soft object in his mouth to prevent his biting tongue and lips?

These diametrically opposed reactions to epileptic seizures serve to show the plight of the mid-twentieth century victim of this disease. Although a growing number of individuals recognize epilepsy for what it is—a disease to be conquered—superstitions yet becloud the minds of many to block giving epileptics the chances they deserve. The victim remains the target of some discriminatory legislation and at least an equal amount of social ostracism. He is often barred from employment—from many jobs which he can fill as well as the next person. If the victim develops epilepsy early in life, he is often barred from attending some schools.

Although we today do not believe the theory that epileptics are possessed by demons—a theory given credence as late as the eighteenth century—we sometimes act as if we do believe it, according to Dr. W. G. Lennox, an epilepsy specialist. Moreover, we now know, too, that the great majority of persons subject to seizures are in every other way perfectly normal human beings. The mistaken notion that the disease inevitably produces mental deterioration was once prevalent. According to Dr. Lennox, this notion arose before the advent of anticon-

vulsant drugs, when patients' brains did not have enough clear time between seizures in which to function and learn properly. Mental dullness was also a result, in many instances, of overdosage with older drugs. Finally, the concept of a "typical epileptic personality"—described as a person who is self-centered, opinionated, irritable, narrow in outlook, shallow in emotions—is not given as much weight today as it once was. The concept is today considered by leading authorities as a gross libel on the majority of patients who are seen in doctors' offices and clinics.

It is estimated that the epileptic population of the United States is 800,000. Another estimate has it that as many people suffer from epilepsy as from diabetes or active tuberculosis—about one in two hundred in this country, or about a million. But because many epileptics understandably attempt to conceal their affliction, there are no accurate figures on the incidence of the disease.

Consider the case of Emilie Dionne, one of the famed quintuplets, who died in early August 1954. Although thousands of newspapers in many lands had carried many millions of words of publicity about these five Canadian girls since their birth twenty years before, it was not until an autopsy was performed following Emilie's death that the world knew she suffered from epileptic seizures. In fact, complications which arose during an attack—not the attack itself, for epilepsy rarely causes death—was stated as the cause of her death. The Dionne family had kept Emilie's affliction such a well-guarded secret that surprise was expressed in many quarters when results of the autopsy became known.

The cost of the disease when measured in money—not counting lost manpower—amounts to at least \$60,000,000 a year. Measured in heartaches and wrecked lives, the toll is also sorrowfully high.

The medical profession is today armed with improved methods of diagnosis and a host of new and better anticonvulsant drugs for treatment in the battle to control

epilepsy. Given adequate medical and social care, an estimated eighty out of every one hundred persons with seizures can lead relatively normal lives. Yet one big barrier remains to prevent their doing so. Dr. Pearce Bailey, director of the National Institute of Neurological Diseases and Blindness at Bethesda, Md., estimated in 1952 that only twenty per cent of the country's epilepsy cases were being controlled.

Perhaps the biggest barrier to control is the lack of information in the hands of victims and the public. Both physicians and laymen can help to spread the knowledge of the methods and treatment now available. The National Epilepsy League, Inc., is one group of laymen which has been active in spurring educational projects to further the control of epilepsy.

Recognition, which is an important step in controlling any disease, is doubly important in the case of epilepsy. It has been said that there is no such thing as a typical seizure. The attack may take an infinitely varied number of forms. However, the skilled physician looks for three main types. These are grand mal, or major epilepsy, petit mal or minor epilepsy and psychomotor seizures or masked epilepsy. Attacks of major epilepsy are more common than other types of seizures. During one of these attacks, the patient loses consciousness, his muscles tighten, and he falls. He may cry out or groan, due to the constriction of the chest muscles, but he is not in pain. Saliva appears on his lips. His face may be first dusky and then pale. He twitches violently for a minute or so—it seems much longer to the worried bystander. Usually in a few minutes, he lies relaxed. Then he may sleep heavily for hours, or he may get up but feel dull and confused for a short period, or he may immediately return to his usual self. Attacks of minor epilepsy occur much more frequently and are often overlooked because they may last only a few seconds. They consist of a brief stare and may or may not be accompanied by a rhythmic twitching of the eyelids or eyebrows. Some patients who are known to have petit mal attacks later develop the grand mal type.

Masked epilepsy attacks are the most difficult type to recognize because the seizures may vary greatly from one patient to another and because mild forms may look like minor epilepsy and severe forms like the major type. This type of seizure occurs in

approximately one-third of adult epileptics. In an attack of masked epilepsy, the patient is unaware of what is going on. He may appear to be conscious, although afterward he does not remember anything that happened. Yet there is coordinated and seemingly responsible behavior. The seizures may appear to be only a temper tantrum or a period of queer behavior—as in the case of a man who would wander around the room pulling down pictures and throwing books on the floor. When such episodes begin abruptly, are contrary to the person's ordinary personality, and are not remembered by the patient, they are suggestive of epilepsy.

The exact cause of epilepsy is not known. One factor in many disorders is a predisposition or susceptibility to the disorder. In other words, there may be a tendency or "weakness" for the disorder in question. This predisposition or tendency is often inherited, but it is generally agreed by specialists today that the importance of hereditary factors in epilepsy has been exaggerated, and that they are of no more importance than in other common illnesses.

In his diagnosis the physician seeks to determine whether a case is of unknown cause or symptomatic. In a case of unknown cause, no evidence of any defect or injury to the brain after birth, which could be blamed for the seizures, is disclosed. On the other hand, symptomatic epilepsy is due to some brain injury, such as concussion or brain tumor, or to some malfunction of the body, such as kidney or glandular disease, which occurred after birth but before the start of seizures.

The case history in an epilepsy case is apt to be a voluminous one. The physician will need to know a number of things that only the patient himself can tell. One important item is a description of the seizures themselves. The information needed may include the number of blood relatives who have had seizures or any other form of nervous disorder; whether the patient has ever had measles, a mastoid infection, meningitis or encephalitis. The physician will most likely ask if the patient's birth was difficult; if he had convulsions as a baby, or if he has suffered any serious head injury. It is important for the physician to know these things because at least some of the conditions mentioned are found more frequently among people with seizures than among other people.

Of necessity, the physician must exclude various conditions which resemble epilepsy.

These include fainting spells due to other causes, hysteria and the convulsions characteristic of tetany, to name a few.

A physical examination is another "must" in the process of diagnosis. Such an examination includes a determination of the condition of the heart, lungs, blood pressure and posture; whether there is any strain on the nerves because of poor eyesight, poor muscular development, or from infections of tonsils, sinus or appendix. Various laboratory tests also are made to supplement what the physician can see, feel and hear.

The best weapon in the physician's arsenal for differentiating between the three types of epileptic seizures is a device called the electro-encephalograph. It has been known for a long time that the brain—like the heart—gives off electric currents. But these currents are extremely small. The electro-encephalograph is able to record the brain's electric currents, and the record is called an electro-encephalogram. Each of the three main types of epileptic seizures is accompanied by a brain wave pattern which is different from other types. Unfortunately, the electro-encephalograph is expensive equipment and therefore is not always available for use in every community.

An electro-encephalogram and other evidence may suggest the presence of a tumor or a scar in the brain. In such a case, the physician may want to confirm the evidence with a special kind of x-ray. Such an x-ray is taken by injecting air through the patient's spinal canal. The air rises to fill the cavities of the brain; the cavities can then be seen by x-ray and any abnormality, such as a tumor, may become more clearly visible.

Because medical science has thrown much light on the disease of epilepsy, there is no longer any need to "whistle in the dark." With proper diagnosis, many avenues to controlling seizures are now open.

No great public civic movement makes real headway without the participation of large numbers of citizens. The tuberculosis movement stands in the forefront of these movements and can with justification point with satisfaction to the great body of volunteers organized in nearly every state and county of the United States as a potent force that has brought the tuberculosis movement to its present status. In this way, it has laid the foundation for volunteers to play an ever-increasing part in the ultimate control of tuberculosis, to the point where it no longer is a serious threat to American public health.—*Bailey B. Burritt, NTA Bulletin, May 1954.*

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

August 1954

Examinations for diphtheria bacilli and Vincent's	381
Agglutination tests	1,079
Typhoid cultures (blood, feces and urine)	786
Brucella cultures	5
Examinations for malaria	224
Examinations for intestinal parasites	4,219
Serologic tests for syphilis (blood and spinal fluid)	23,020
Darkfield examinations	3
Examinations for gonococci	1,806
Examinations for tubercle bacilli	3,308
Examinations for meningococci	0
Examinations for Negri bodies	105
Water examinations	2,097
Milk and dairy products examinations	5,586
Miscellaneous	1,351
Total	43,970

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

	July	Aug.	E. E.* Aug.
Typhoid and paratyphoid fever	8	8	13
Undulant fever	2	1	2
Meningitis	5	8	7
Scarlet fever	21	11	18
Whooping cough	66	60	58
Diphtheria	13	29	16
Tetanus	5	0	4
Tuberculosis	191	188	246
Tularemia	0	0	0
Amebic dysentery	1	2	2
Malaria	2	1	20
Influenza	25	56	23
Smallpox	0	0	0
Measles	228	55	29
Poliomyelitis	77	68	62
Encephalitis	0	1	1
Chickenpox	30	3	5
Typhus fever	3	4	15
Mumps	135	37	30
Cancer	463	344	363
Pellagra	0	1	2
Pneumonia	177	117	98
Syphilis	150	139	1040
Chancroid	4	10	9
Gonorrhea	387	542	496
Rabies—Human cases	0	0	0
Positive animal heads	36	17	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR JULY 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered During July 1954			Rates* (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Total live births	7048	4402	2646	25.9	29.0	28.2
Total stillbirths	171	71	100	23.7	22.9	24.6
Deaths, stillbirths excluded	2234	1392	842	8.2	7.9	9.0
Infant deaths—						
under one year	216	95	121	30.6	31.8	34.2
under one month	152	73	79	21.6	23.7	23.0
Cause of Death						
Tuberculosis, 001-019	35	11	24	12.9	14.5	13.9
Syphilis, 020-029	9	3	6	3.3	3.3	2.6
Typhoid and paratyphoid, 040, 041						0.4
Dysentery, 045-048	2	1	1	0.7	1.5	1.1
Scarlet fever, 050	1	1		0.4		
Diphtheria, 055	1		1	0.4		0.4
Whooping cough, 056	1	1				
Meningococcal infections, 057	3	1	2	1.1	1.5	1.1
Poliomyelitis, 080, 081	4	3	1	1.5	2.6	1.9
Encephalitis, 082, 083						1.5
Measles, 085	2	1	1	0.7		0.4
Typhus fever, 100-108	1		1	0.4		
Malaria, 110-117						0.4
Malignant neoplasms, 140-205	250	174	76	91.9	102.1	106.9
Diabetes mellitus, 260	28	17	11	10.3	8.2	12.8
Pellagra, 281	1		1	0.4	0.7	1.5
Vascular lesions of central nervous system, 330-334	330	216	114	121.2	92.8	111.0
Other diseases of nervous system and organs of special sense, 340-398	26	17	9	9.6	10.0	14.7
Rheumatic fever, 400-402	8	4	4	2.9	0.7	2.3
Diseases of the heart, 410-434	526	375	151	193.3	184.2	257.4
Hypertension with heart disease, 440-443						
Diseases of the arteries, 450-456	152	74	78	55.8	52.7	
Other diseases of circulatory system, 444-447, 460-468	44	32	12	16.2	14.1	16.9
Influenza, 480-483	40	20	20	14.7	11.9	17.3
Pneumonia, 490-493	7	6	1	2.6	1.9	2.3
Bronchitis, 500-502	43	26	17	15.8	13.4	23.7
Appendicitis, 550-553	2	1	1	0.7	0.7	1.5
Intestinal obstruction and hernia, 560, 561, 570	4	2	2	1.5	1.1	1.5
Gastro-enteritis and colitis (under 2), 571.0, 764	13	8	5	4.8	5.6	5.3
Cirrhosis of liver, 581	20	5	15	7.3	8.5	13.5
Diseases of pregnancy and childbirth, 640-689	11	9	2	4.0	3.0	3.4
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	12	4	8	16.6	13.8	22.4
Congenital malformations, 750-759	2	1	1	2.8	2.5	4.0
Accidental deaths, total, 800-962	36	25	11	5.1	3.7	5.7
Motor vehicle accidents, 810-835, 960	171	129	42	62.8	47.2	72.3
All other defined causes	75	59	16	27.6	19.7	27.5
Ill-defined and unknown causes, 780-793, 795	349	188	161	128.2	151.9	142.3
	102	40	62	37.5	43.1	48.6

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

Acute Renal Failure—The aims of treatment are (1) to prevent protein catabolism since the end products of protein catabolism are toxic, (2) to keep the body water normal, and (3) not to give anything harmful. If the patient can retain food or fluid, a Borst diet, which is a butter and sugar mixture of about 2400 calories per day, is given by mouth, or a Bull diet, which is a coconut or peanut oil and dextrose mixture, can be given by Levine tube since it is liquid. If the patient is nauseated, 50 per cent glucose may be given in distilled water through a polyethylene catheter threaded through the femoral vein into the inferior vena cava, or 25 per cent glucose may be given into a peripheral vein, the amount to be determined by the patient's daily fluid requirement. Fluids are limited to 600 cc. plus the volume loss through the kidney or from the gastrointestinal tract. No salt or alkali is given except to replace intestinal losses. The idea that cast formation can be prevented by the early administration of alkalies has been completely discarded. Potassium, acid salts, and diuretics are *harmful* and should never be used. One does not try to correct the abnormal blood chemistry findings other than potassium elevation. Transfusions are avoided unless the hemoglobin falls below 6 grams; then only packed red cells should be given, or else pulmonary edema may be precipitated.

Potassium-absorbing resins have been used effectively by some by giving them from the very first day, but in our experience the patient is usually too nauseated to take them. They are not nearly so effective when given by rectum. Temporary relief from potassium intoxication may be obtained by the use of 50 per cent glucose and insulin or by calcium gluconate administration. Gastric suction is helpful for a while and peritoneal lavage is even more effective. A ureteral catheter is introduced through a paracentesis needle into one side of the abdomen and about 2000 cc. of the dialyzing fluid introduced. After this a catheter is placed in the opposite side of the abdomen and the fluid drip is adjusted to the output.

Antibiotics are given to the patient and peritonitis will not usually result if the patient is not treated for longer than thirteen hours.

A safer and more effective procedure is dialysis by the artificial kidney. If urine flow is still less than 500 cc. a day and the blood potassium is as high as 7mEq./L., dialysis should be used. Those with great experience in the field are convinced that some deaths can be prevented by using the kidney routinely after the seventh to tenth day of oliguria with no sign of diuresis. It is not uncommon to have a sudden death in the presence of a normal potassium after the seventh to tenth day.—Merrill, J. Louisiana State M. Soc., Oct. '54.

NEXT MEETING
OF THE ASSOCIATION
MONTGOMERY
APRIL 21, 22, 23, 1955

AMERICAN MEDICAL ASSOCIATION NEWS

DRUG ACTS DRAMATICALLY ON MENTALLY ILL

Three California physicians have reported "dramatic" results in treating mental patients with a new form of the old snakeroot remedy of India, *Rauwolfia serpentina*.

They said the drug, reserpine, is not a cure-all for mental illness but may prove to be "the most important therapeutic development in the history of psychiatry."

The drug quieted noisy, uncooperative patients, made them more adapted to psychiatric treatment, and largely replaced electroconvulsive therapy. It even seemed to bring about an "amazing" reorganization of patients' personalities, the doctors said. And it gave hospital technicians the hope and optimism so necessary for effective treatment. They were overjoyed at the prospect of becoming rehabilitation therapists instead of custodians.

Drs. Robert H. Noce and David B. Williams, Modesto, and Dr. Walter Rapaport, Sacramento, described their work in the Oct. 30 Journal of the American Medical Association.

They treated 74 mentally ill patients with reserpine. About 80 per cent showed improvements attributable to the drug. Eight patients were discharged and 20 may be given leaves of absence. Reserpine also appeared to be of value to mentally retarded patients, 15 of whom were treated.

They said psychiatrists long have been seeking a safe method or agent that could help the mentally ill toward normalcy. Although "it seems incredible" that a drug could replace other treatment such as electroconvulsive therapy, they said they expect it to "revolutionize and facilitate modern psychiatric treatment."

The Indian plant has been used for centuries to treat mental illness, snake bite, anxiety, insomnia, and various other conditions. Its latest use has been to lower blood pressure in hypertensive patients. Recent claims by an Indian psychiatrist of high rates of recovery in the mentally ill led to this investigation.

For the study, the California men selected only "the so-called backward patients" who had been regarded as "hopeless." They

came from wards containing many persons in seclusion and some in restraints or under heavy sedation. Patients were "raucous, hyperactive, combative, sarcastic, resistive, uncooperative," and the ward was "in constant turmoil." Tasks such as feeding, dressing, and bathing patients "were arduous and had a depressing effect on the personnel assigned to these wards."

Since the beginning of reserpine treatment, patients have undergone a change to "cooperative, friendly, cheerful, sociable, relatively quiet persons" who are better adapted to psychiatric treatment and rehabilitation. Most have gained weight and asked for assignment to work details.

"Depressed patients become alert and sociable, while the hyperactive, noisy, assaultive group becomes tranquil," they said. "The use of restraints, seclusion and electroconvulsive therapy has decreased by at least 80 per cent since this study began (in October 1953)." There has been little difficulty with side-effects.

"Not only the patients have benefited but the ward technicians have adopted hopeful, optimistic attitudes, which are required for any positive and effective approach to therapy. They are overjoyed at the prospect of being converted from custodians to rehabilitation therapists," the doctors said.

"We cannot simply describe the effects of reserpine by confining them to the tranquilizing action of the drug. In addition, we believe that reorganization of the personality is taking place in an amazing, rapid, satisfactory manner.

"It is still too early to say what the ultimate classification of all these patients will be, for it appears that the longer a patient takes reserpine the better the chance for response," they said.

A careful study of mass x-ray surveys (in Connecticut) covering more than 400,000 persons in a period of six years has shown that the highest percentage of cases of tuberculosis in men is found among service workers (such as barbers, cooks, waiters, janitors, etc.). In women, personal service workers, such as beauty operators, cooks, waitresses and practical nurses show the highest percentage incidence, but far below that of men in the same occupational classification.—*Paul S. Phelps, M. D., The John N. Wilson Memorial Lecture, April 30, 1954.*

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TRAUMA ABOUT THE FACE

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As mechanization of every sort more and more hems us in on every side, and as we indulge our desire to transport ourselves ever faster through space, that part of our anatomy, which, by its very exposed location, usually precedes the rest of us in approaching danger, and is the last to retreat from danger, is peculiarly liable to the effects of sudden and unforeseen injury.

Perhaps we should begin by justifying the title of this paper, "Trauma About The Face." The implication is that there is something different about trauma in this area. Therefore, at the outset let us attempt to answer the question, "What is so different about trauma when it is sustained to the face instead of to some other part?"

We might say that the differences will fall into three groups: the psychological, the functional or physiological, and the anatomical.

Psychological: Each of us stands together, one with another, and stands out, one from another, principally because of characteristics located above our collars. On the one hand are those basic similarities of features which signify our fraternity in the human species, and assure us full membership in human society; and on the other hand are those subtler differences which reflect our individuality. In other words, it may be said that nature allows us all certain insignificant differences but insists on similarities within only slightly broader limits. Should we therefore find our face, either as the result of birth or disease or injury, out of conformity with our fellow man's, we are

apt to feel inadequate, inferior, and "different." Take, for example, a girl with a badly burned and distorted face. We are all aware of the obvious fact that she has met with a great physical disaster. But, beyond that, those "differences" we spoke of are too great. Her face is unacceptable. She is a pitiable but unpleasing curiosity to her friends. She is a social outcast. And because she is a social outcast she will also be an economic outcast. To go into these things is not within the scope of this paper, but we must mention them because these are the inexorable complications in the pathology of facial disfigurement.

Nor do injuries to the face have to be extensive to have unfortunate sequelae. An eyelid which droops only a few millimeters lower than the other throws a face uncomfortably out of adjustment. A friend of mine has a small contracted scar of his upper lip which I have known people to take for a sneer, though I know very well this man is incapable of any such emotional display on a voluntary basis.

Functional and Anatomical: We mentioned two other differences of trauma to the face as compared with trauma elsewhere: the functional and the anatomical. Since they are closely related, we may discuss them together.

The face has one single and two paired natural orifices. Circular muscles are disposed about these orifices; linear muscles of expression are attached to the circular muscles and subcutaneous tissue, and all function to alter these orifices in one way or another. Now, the so-called "free borders" of the lips, the nostrils and the eyelids are vulnerable to trauma in a peculiar way. As

we know, all scarring initially contracts. This is true whether it be a linear traumatic scar, the scar following infection, or the scar beneath a skin graft. Since there is no counter-pull in an opposite direction all contracture about these orifices results in unfortunate and unpleasing deformities.

There is another important intrinsic difference in the soft tissues of the face. The parts being highly mobile, especially about the lips and eyelids, are not made of inelastic leathery-type tissue such as the back, or the sole of the foot, but are composed of loose, elastic, areolar-type tissue. This tissue does two things when it suffers injury. First of all, when skin which contains many elastic fibers is divided, the edges invert. The reason for this is that these fibers are situated primarily in the deeper layer of the dermis, and, when severed, retract and cause the superficial portion of the wound margin to curl downward and backward. This situation obviously calls for suturing of a type that will insure proper approximation so that we will not have a depressed scar.

The second unfortunate characteristic of this soft and loose tissue is that it is readily capable of tremendous swelling. This may be the result of tissue damage or because of the extravasation of blood. This is of great importance because where much swelling can be expected we need to exert care lest our sutures become too tight and cause that hall-mark of poor surgical craftsmanship, the stitch-mark. In this situation we prevent stitch-marks by placing skin sutures very loosely, if at all, relying principally upon buried sutures to maintain suitable apposition.

We plastic surgeons have one great fault in common. We all kind of like to dig down into the bottom of our slide cabinet and, after a great deal of weeding out, come up with a few rather striking pre- and postoperative photographs. We may not understand exactly why they look so good ourselves, but we eagerly present them with the unspoken implication that these are perfectly routine samples of what we are able to accomplish under any and all similar circumstances. It is of course perfectly obvious that we all could produce some rather ghastly postoperative results if we wished.

There are essentially six types of traumatic soft-tissue wounds: 1. lacerated, 2. con-

tused, 3. abraded, 4. perforated, 5. avulsed, 6. burn, and, of course, all possible combinations of these. There are a number of things we will say of each of these types, but first let us talk about all of them as a group.

A traumatic wound is a wound which occurs under totally uncontrolled conditions. In all except the cleanly-incised lacerations, the surrounding area is damaged to some degree. The principal pathological response to tissue damage and tissue destruction is fibrous tissue replacement. Furthermore, these wounds are contaminated at the time of the injury, and tissue devitalized by trauma is fertile soil for the multiplication of infective organisms. Consequently, poor healing, fibrosis and hypertrophic scars may be frequently anticipated.

The immediate conclusion we can draw from these facts is this: A contaminated traumatic wound is simply not going to heal as well as a surgical wound aseptically repaired under optimal conditions. In the surgical treatment of extensive facial trauma there are usually these two phases: the immediate repair and later, when the wounds are closed and we have controlled conditions, the definitive or reconstructive phase. What is impressive is the difference in healing reaction of a closed wound revised under aseptic conditions as compared with a freshly traumatized wound repaired under the worst possible conditions. All right, you say, all that is fine. But I cannot operate on all my traumatic wounds twice. Most of my patients have to be satisfied with their primary repair. What I want to know is how can I increase my percentage of acceptable primary results?

Careful attention to certain basic principles is of the greatest importance:

1. Cleansing. Practically all traumatic wounds require cleansing. Some foreign material makes its way into the depths of such a wound, and the inevitable bacterial contamination will usually result in some degree of infection. In general, the best cleansing agent is gauze with mild soap and water—either white soap or one of the diluted surgical soaps. Green soap should be avoided as it is injurious to tissues. If the wound is large and painful, local anesthesia can be employed after a minute or two of preliminary cleansing followed by the application of an antiseptic to the surrounding

skin. The needle should never be introduced into the wound, as bacteria or dirt particles may be carried further into the tissue, but preferably through the immediately adjacent uninvolved area. Antiseptics should never be used in open wounds. Bacteria in this situation cannot be effectively attacked, and most antiseptics are definitely injurious to tissues.

2. Debridement. In general, badly devitalized tissue should be removed by sharp excision. Wounds with ragged or sloping edges should be re-excised to give clean, perpendicular margins. Damaged wound edges unite slowly, are more susceptible to infection, and heal with increased scar formation.

Now when we reach the debridement stage, it is important that we decide, if possible, whether our surgery is going to be temporary or definitive, as this decision will often have great bearing on our treatment. Unfortunately, there are no rules which will lead us unerringly to such a decision. This is obviously a matter of surgical judgment. We have heard the dictum that we should always preserve every viable bit of tissue in wounds about the face. This is usually a safe course but it is often a rather defeatist approach. If we have a ragged wound in an area such as the forehead or chin, and if cleanly excising $\frac{1}{8}$ " or so of badly traumatized tissue on either side of the wound will result in no postoperative distortion, then this is probably the course to pursue. If, on the other hand, we have a similar transverse wound just above the vermillion border of the upper lip, for example, the same type of treatment would result in a most disfiguring situation.

3. Repair. Sharply incised lacerations, as from a knife or glass, ordinarily are not associated with appreciable damage to the surrounding skin and can be definitively closed after cleansing. Needless to say, where several layers of tissue are divided, these should be closed layer by layer. Non-absorbable sutures only are recommended, and they should be of small calibre. Suture material is a foreign body, and we want as little of it as possible in our wound. When we think that a 0000 silk has half the bulk of a 000 silk, and 00000 half the bulk of that, and that Halsted tied off the aorta of a dog with the equivalent of a 000000 silk, we can ask ourselves if we are adding as little foreign body as possible to our wounds.

The manner of placing skin sutures is something we almost take for granted without critical evaluation. It is considerably easier to take a somewhat sloping bite of the needle, but the result is to cause slight inversion and depression of the wound margins. And add to that the fact that scars contract not merely lengthwise but vertically as well and you can see the probability of a depressed scar as an end result. On the other hand, taking our bite directed slightly backwards, i.e., away from the wound edge, including more tissue deeply, results in the slightly elevated wound margins necessary to offset the tendency to perpendicular contracture.

Stitch-marks are caused more by sutures being too tight than by being left in too long. Permanent unsightly cross-hatching of a wound closed too tightly may result even though the sutures are removed in 24 hours. In the absence of tension (and of course infection) sutures can be left in place for a week or even longer with little likelihood of this most unpleasant complication. Now with this consideration in mind, we should not only not suture our wound too tightly on the operating table but we should satisfy ourselves that tomorrow, with whatever swelling can be anticipated, those sutures will still not be too tight. For example, a razor gash can be closed with nice apposition and, if the sutures are not too tight to begin with, we need not anticipate excessive stitch-marks. However, if a wound is caused by a blunter object, and if considerable contusion of the area has occurred, and, further, if the contused wound has occurred over loose areolar-type tissue such as the lip, cheek or eyelid, then a great amount of swelling can be expected to ensue shortly. Obviously, if this type of wound is sutured with the same degree of tension as the uncomplicated laceration, we are going to have strangulated wound edges, impaired healing, and practically irreparable stitch-marks.

Should any wounds not be sutured? Very few indeed. Open wounds are unphysiological; they mean chronic infection, pain, drainage, delayed healing and increased scarring. The following types of wounds are generally not closed: those surrounded by massive tissue damage, where debridement would be damaging, disfiguring, or otherwise impractical; grossly infected wounds; and puncture wounds, especially those involving deep implantation of con-

taminated material. These are not closed because of the danger of anaerobic infection, and because drainage must be anticipated and a path of exit provided for.

There is a widespread tendency to leave unrepaired lacerations involving the tongue and the inside of the lip or cheek. This is poor surgical practice. Healing of divided tissues depends directly on the degree of apposition which can be restored and maintained throughout the healing period.

Let me take this occasion to urge the abolition of another poor surgical practice. There is a pernicious substitute often used in place of sutures when sutures are clearly indicated. This is the so-called "butterfly" dressing. This is about as undependable as its name would imply. It is about like closing a rent in a flour-sack with a

band-aid. If the wound is worthy of your professional attention, do not patch it. Repair it.

One final word about dressings. A dressing can do a far more important job than just cover over a wound. If it is the right kind of dressing it will actually splint the wound. All injured parts heal better at rest. If, instead of adhesive tape and gauze, we cement a strip of sterile roller gauze bandage across the wound with collodion, we do a great deal toward immobilizing the injured part and helping take undesirable tension off the suture line and wound edges. By continuing these very effective little supportive strips for ten to fourteen days, we are able to remove the skin sutures earlier, protect the wound against accidental additional trauma, and have less spread and hypertrophy of the scar.

RESPIRATORY EMERGENCIES IN NEUROLOGY

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Death may result from respiratory failure of neurogenic origin or obstruction of the airway in many patients with neurologic disease. Tracheotomy or treatment in a mechanical respirator may be lifesaving, particularly in those cases in which the underlying nervous system disease is potentially reversible. The following case is illustrative:

"A 35-year old nurse entered the hospital because of right arm and shoulder pain and weakness in the right shoulder girdle muscles. There was a history of a cough and fever prior to the pain, but the patient was afebrile on admission. Examination showed signs of a scattered neuropathy, and a diagnosis of a post-infectious neuritis or Guillain-Barré's syndrome was made. She shortly developed slight trouble swallowing solids, and showed a right facial weakness. Her course appeared to level off in the next few weeks, but on the forty-second day of admission she was noted to have increasing difficulty swallowing and 'pooling' of secretions in the nasopharynx and shortly thereafter had a sudden, complete cessation of respiration. A portable chest respirator maintained respiration while a tracheotomy was quickly made, and later the patient was transferred to a tank-type mechanical respirator. After a few weeks she was again able to maintain her own respirations and made a slow but almost complete neurologic recovery in the following six months. She is now back at work."

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An understanding of the types of disturbed mechanics of respiration found in nervous system disorders is essential to rational therapy. A knowledge of the diseases involved and the warning signs and symptoms is essential if the emergencies are to be anticipated adequately.

PATHOLOGIC PHYSIOLOGY

The respiratory center and the nerve cells controlling the muscles of swallowing, the tongue and the larynx are contained in the medulla oblongata in a space no larger than the end of one's forefinger. Damage to the respiratory center¹ may result in shallowness of respiration, respiratory irregularities, periods of apnea and finally cessation of breathing. Involvement of the lower cranial nerves may result in obstruction of the respiratory passages in several ways. There may be asphyxia due to accumulation of secretions or vomitus if the swallowing muscles are paralyzed. There may be obstruction due to closing of the vocal folds either from paralysis of the abductor muscles of the larynx (as in poliomyelitis or myasthenia gravis) or from tonic spasm of the larynx

1. Brown, J. R., and Baker, A. B.: I. Bulbar Poliomyelitis: A Neurophysiological Interpretation of the Clinicopathological Findings, *J. Nerv. & Ment. Dis.* 109: 54-78, 1949.

geal muscles (as in tetanus). In health, a mild oxygen lack will stimulate the respiratory center to compensate with deeper and faster respirations. When there is disease involving the respiratory center, this may not occur and a progressive depression of respiration may result from even mild anoxia.²

Nerve cells supplying the muscles of respiration are found in the anterior horn cells throughout the cervical and thoracic cord. Their destruction may cause paralysis of the diaphragm, intercostal muscles, and accessory muscles of respiration either bilaterally, unilaterally, or in varying combinations. The different types of abnormal breathing resulting are described by Klingman.³

SYMPTOMATOLOGY

Some of the more important signs and symptoms which should alert the physician to the possibility of neurogenic respiratory disturbance are listed in Table I. They are particularly significant in patients whose disease is still progressing clinically. It is important to remember that cyanosis does not develop until the arterial oxygen saturation drops to 80 per cent or less,⁴ and therefore the presence of cyanosis cannot be relied on as an indication of early anoxia. Before this level is reached, serious damage may occur to nerve cells partially injured by other pathologic processes. This is particularly true in poliomyelitis where an increase in paralysis or increased depression of the respiratory center has been noted immediately following bouts of anoxia.

ETIOLOGY

Any type of nervous system disease can produce injury to those parts of the nervous system which control respiration. The following are five of the more common conditions for which prompt treatment may be lifesaving:

Poliomyelitis: The virus of poliomyelitis may cause widespread damage to the nervous system resulting in any type and combination of respiratory symptoms described.

2. Gellhorn, E.: The Medulla Oblongata in Anoxia, *Arch. Phys. Med.* 29: 88-91, 1948.

3. Klingman, W. O.: The Localizing Significance of Impaired Respiratory Movements in Lesions of the Spinal Cord, *Bull. Neurol. Inst. N. Y.* 1: 136, 1931.

4. Comroe, J. H., and Botello, S.: The Unreliability of Cyanosis in the Recognition of Arterial Anoxemia, *Am. J. M. Sc.* 314: 1, 1947.

GENERAL SYMPTOMS SUGGESTING ANOXIA AND/OR CARBON DIOXIDE RETENTION

May occur as a result of any of the different types of neurogenic respiratory disturbance. Mounting anxiety, restlessness, and fear. Sometimes fear of death. (This may be the very first suggestion of trouble. It should never be dismissed as being simply due to anxiety.) Headache.

Hypertension.

Confusion and disorientation.

EARLY WARNING SIGNS OF MEDULLARY INVOLVEMENT

The occurrence of any of the following signs or symptoms suggests involvement of the medulla. Respiratory center involvement or obstruction of the airway may follow.

Swallowing difficulty.

Speech difficulty (slurred or "nasal").

Inability to make a high pitched "eeee" sound.

Hoarseness.

Projection of the tongue to one side (weakness of tongue muscles).

Movement of the uvula to one side (weakness of the palatal muscles).

Pooling of excessive secretions in the nasopharynx (suggests weakness of the pharyngeal constrictors and may occur without any deviation of the palate).

WARNING SIGNS OF RESPIRATORY PARALYSIS IN THE SPINAL CORD

Weakness of the shoulder muscles (especially deltoid and supraspinatus which move the arm out and to the side. The nerve cells supplying these muscles are within one spinal segment (C-4) of the nerve cells to the diaphragm).

Diminished forcefulness to the cough.

Diminished chest excursion.

Rib margins flare excessively on inspiration with inability to sniff (diaphragm weakness).

Rib margins pull inward on inspiration (lower intercostal weakness).

Dyspnea.

TABLE I. EARLY WARNING SIGNS OF NEUROGENIC RESPIRATORY DISORDER

The disease follows an acute course and respiratory failure or airway obstruction may develop rapidly. In severe spinal poliomyelitis the virus may produce respiratory paralysis through involvement of the nerve cells supplying the intercostal muscles and diaphragm. A mechanical respirator will then be needed. In bulbar poliomyelitis the virus may invade the nerve cells of the lower cranial nerve nuclei resulting in airway obstruction. Tracheotomy may then have to be done. If the virus causes severe damage to the respiratory center in the brainstem, respirations may cease despite the fact that the spinal nerve cells supplying the intercostal muscles and the diaphragm are intact. If this happens a respirator will

effectively maintain breathing. Some patients with respiratory center involvement, however, may be unable to synchronize their breathing with the respirator and yet be unable to survive without it. In these cases it is sometimes necessary to use sedation in order to suppress the remaining function of the respiratory center and allow the respirator to take over the breathing.⁵ Except under these circumstances one must be extremely cautious about prescribing sedation or narcotics to patients with bulbar symptoms or signs.

Guillain-Barré's Syndrome (Neuronitis): An example of respiratory difficulties in neuronitis was given in the case report at the beginning of this article. This is a condition in which the pathologic process is thought to be reversible, yet a mortality of 20 per cent has been reported,⁶ and in patients over 50 years of age a mortality of 40 per cent⁷ has been found. Many of the fatalities are because of respiratory complications. If the patients are kept alive in a respirator through the acute phase, their chance of ultimate recovery is significantly increased.

Tetanus: Two of the possible mechanisms that may lead to death in tetanus are asphyxia due to spasm of the glottis and medullary failure.⁸ It has been shown histologically in tetanus that damage occurs to certain nerve cells in the medulla oblongata.⁹ By early elective tracheotomy in tetanus, one avoids the anoxia which might result from spasm of the glottis. In so doing, one also avoids further injury to the medulla which might result in central respiratory failure.

Myasthenia Gravis: Respiratory failure is the most common cause of death in this

muscular disorder.¹⁰ In the course of the disease the patient may reach a stage where the response to prostigmine or other anticholinesterase drugs may be inadequate to maintain respiration. Bouts of dyspnea may precede this event.¹⁰ Treatment in a mechanical respirator may provide badly needed rest and maintain life until a remission occurs with the patient again responsive to treatment. Shapiro described a case¹¹ in which treatment with ACTH was instituted in a patient in a respirator, and the patient later went into a remission. In myasthenia gravis, as well as in poliomyelitis, airway obstruction due to paralysis of the abductor muscles of the larynx may necessitate an emergency tracheotomy.

Head Injuries: In patients with severe brain injuries, it is frequently impossible to maintain an adequate airway even with the most diligent attention to suctioning. Episodes of respiratory obstruction from tenacious mucus are not infrequent. The resultant anoxia may add to the brain damage already inflicted by the trauma and cause increased cerebral edema.¹² Furthermore, brain stem injury is not infrequent in cranial trauma, and respiratory center injury may occur. Recently there have been reports of beneficial results from tracheotomy in such cases.¹² Immediately after the procedure, rapid improvement in depressed or Cheyne-Stokes respiration may be seen.¹³ These effects suggest improved medullary function. By avoiding the superimposition of anoxia on brain injury through tracheotomy and supplemental oxygen, some patients may survive who otherwise would not.

SUMMARY

1. Many patients with potentially reversible neurologic diseases may die from respiratory center failure or obstruction.
 2. The anatomy and disturbed neurophysiology of respiration in such cases is outlined.
 10. Eaton, L. M.: Care of the Patient Who Has Myasthenia Gravis, *M. Clin. North America*, July 1947.
 11. Shapiro, S. K.: Use of Adrenocorticotropic Hormone in Treatment of Myasthenia Gravis, *Minnesota Med.* 34: 1160, 1951.
 12. Dunsmore, R. H.; Scoville, W. B.; Reilly, F., and Whitcomb, B. B.: Tracheotomy in Neurosurgery, *J. Neurosurg.* 10: 228, 1953.
 13. Baker, R. L.: Personal communication.
5. Baker, A. B.: Poliomyelitis XI, Treatment, *Neurology* 4: 379, 1954.
 6. Gilpin, S. F.; Moersch, F. P., and Kernohan, J. W.: A Clinical and Pathological Study of a Special Group of Cases Frequently Referred to as Instances of Neuronitis, *Arch. Neurol. and Psychiat.* 35: 937, 1936.
 7. Baker, A. B.: Guillain-Barré's Disease in the Older Age Group, *Geriatrics* 1: 132-143, 1946.
 8. Tucker, J. S., and Lasater, G. M.: The Treatment of Tetanus, *Journal-Lancet* 70: 107, 1950.
 9. Baker, A. B.: The Central Nervous System in Tetanus, *J. Neuropath. and Exper. Neurol.* 1: 394-405, 1942.

3. The problem is reviewed as it presents itself in several of the more common clinical conditions: namely, poliomyelitis, Guillain-Barré's syndrome, tetanus, myasthenia gra-

vis, and head injuries.

4. The importance of recognizing the warning signs, and the urgent need for decisive treatment are stressed.

ANTICOAGULANT THERAPY OF THROMBOPHLEBITIS

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Venous occlusive disease, wherein stationary blood clots form within blood vessels, is seen not uncommonly following major operations, broken bones in the extremities and pelvis, and in chronic, wasting diseases necessitating prolonged bed rest. Since these clots may dislodge themselves at any time and become trapped in the small blood vessels of the lungs and other organs of the body (embolization) and thereby block the blood supply to large areas of these organs, venous occlusive disease is capable of causing death of the individual. Treatment must, therefore, be instituted at the earliest possible moment in order to prevent such embolization. Treatment may be directed toward (1) reducing the clotting ability of the blood (anticoagulant treatment) in an effort to prevent further clot formation within the vessel, or (2) surgically tying off either the vessel involved or the larger vessel "down stream" into which the involved vessel content empties.

Anticoagulant treatment consists in the administration of either (1) heparin by vein or muscle, or (2) dicoumarol or one of its analogues such as Tromexan or phenylendandione by mouth.

Heparin, a mucopolysaccharide, and therefore a sugar, resembles the chondroitin sulfuric acid of cartilage. Its anticoagulant effect in the body is apparent within 30 minutes after administration, this being highly desirable and advantageous. However, because of rapid excretion and metabolism of heparin by the body, its effect lasts only 3 to 4 hours necessitating administration of the drug by vein at least every four hours. Continuous administration of heparin by vein as a slow drip results in smoother control of the prolonged blood clotting time

and is considered the method of choice. Heparin can also be given in repository form wherein it is slowly absorbed from the intramuscular injection site. This is a desirable practical method of administration but again control of the clotting time is much more difficult. Should inordinate bleeding result as a consequence of heparin administration, the anticoagulant effect can be obliterated within a few minutes by the intravenous administration of (1) protamine sulfate, a protein derived from salmon spermatozoa, or (2) toluidine blue, an azo dye. Protamine will control the heparin effect on a milligram per milligram basis.

As opposed to heparin, dicoumarol requires 24 to 72 hours to secure its effect on the clotting system and such an effect may last 7 to 10 days without further dicoumarol administration. The antidote for this drug and its analogues is vitamin K₁ of the fat soluble type. Vitamin K₁, a relatively new preparation for general use, is capable of obliterating the dicoumarol effect within 4 to 6 hours. The older water soluble vitamin K preparations required 13 to 20 hours to accomplish this same effect. The slowness of the initial dicoumarol effect and difficulty in ablation of the effect are two distinct disadvantages of dicoumarol and its analogues in the treatment of venous occlusive disease. The obvious advantages are cheapness of these preparations and their ability to act when given by mouth.

The major drawback of any anticoagulant treatment is the need for proper laboratory facilities to evaluate the effect of the drug. In the case of heparin the clotting time of the patient's blood must be determined frequently so as to maintain the clotting time at 20 to 25 minutes as compared with the normal of 6 to 12 minutes. In the case of dicoumarol the more easily performed blood clotting time is of little value and use must be made of the prothrombin time of the plasma. This is a much more difficult test

to perform and is, without doubt, the greatest single deterrent to dicoumarol treatment.

Anticoagulant treatment should be continued for at least 21 days and must in no

way be used to the exclusion of surgical treatment. The occurrence of blood clots in the lungs while anticoagulant treatment is being given is a strong indication for surgical intervention.

LIGATION THERAPY IN THROMBO-EMBOLIC DISEASE

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In order to reduce the number of deaths from pulmonary infarction, it is important to realize that from 25% to 75% of fatal emboli occur without warning of preexisting thrombophlebitis or previous emboli.

To reduce this mortality, prophylactic superficial femoral vein ligations have been tried in elderly postoperative patients in several large clinics. Allen¹ found 4 fatal emboli after 984 prophylactic ligations and 37 fatal emboli in a similar control group of 984 patients. Erb and Shumann² found 2 fatal emboli in 50 femoral neck fracture patients who had prophylactic ligations as compared with the same number of fatalities in 50 alternate fractures of the femoral neck without ligation. Thus, superficial femoral vein ligation may or may not reduce the incidence of fatal infarctions, but it certainly offers less than 100% protection.

The question then arises: If signs or symptoms are present, does ligation of the superficial femoral veins offer a significant degree of protection against embolization? Again the answer is no. Allen and Donaldson³ report 6 fatal emboli in 1260 therapeutic ligations. Moses⁴ reports 3 post-ligation em-

Part of a Panel on Thrombo-Embolic Disease and Its Complications as presented at the annual session of the Association in Mobile, April 15, 1954.

From the Department of Surgery, Medical College of Alabama.

1. Allen, A. W.: Present Day Concept of the Treatment of Thrombosis and Embolism, Pennsylvania M. J. 52: 113, 1948.

2. Erb, W. H., and Shumann, F.: An Appraisal of Bilateral Superficial Femoral Vein Ligation in Preventing Pulmonary Embolism; Use of the Procedure in 100 Controlled Cases of Fracture of the Femoral Neck, Surgery 29: 819, 1951.

3. Allen, A. W., and Donaldson, G. A.: Venous Thrombosis and Pulmonary Embolism, Bull. New York Acad. Med. 24: 619, 1948.

4. Moses, W. R.: Ligation of the Inferior Vena Cava or Iliac Veins, New England J. Med. 235: 1, 1946.

boli, and Veal and Hussey⁵ report 9 subsequent emboli after 39 ligations.

Homans⁶ and others have therefore concluded that, to prevent emboli from the leg veins effectively, ligation must be carried out at least proximal to the profunda femoral vein and preferably as high as the iliac.

If the common femoral vein is ligated, collateral venous return from the legs is seriously impaired, and post-ligation edema is a common and troublesome problem. An occasional embolus arises from the pelvic and iliac veins even with positive leg signs. Common femoral ligation is not protective in this case. It has now been adequately demonstrated that ligation of the inferior vena cava is a much simpler procedure than bilateral iliac vein ligation. The effectiveness of vena caval ligation seems proven by the fact that there is not a report of a single case of embolization after ligation. It is a simple procedure which may be done under spinal anesthesia in 15 to 20 minutes through a McBurney incision. A few deaths have occurred during the course of caval ligation, but each has almost always been due to the patient's disease rather than to operation and is usually a result of waiting too late to do the ligation.

It is not generally realized that collateral circulation around the lower vena cava is extensive, much more so than around the common femoral vein.⁷ Despite this anatomically proven fact, reports of a high percentage of patients with postphlebitic se-

5. Veal, J. R., and Hussey, H. H.: Surgery of Deep Venous Thrombosis in the Lower Extremity, Surgery 17: 218, 1945.

6. Homans, J.: Deep Quiet Venous Thrombosis of the Lower Extremity, Surg., Gynec. & Obst. 79: 70, 1944.

7. O'Neil, E. E.: Ligation of the Inferior Vena Cava in the Prevention and Treatment of Pulmonary Embolism, New England J. Med. 232: 641, 1945.

quelae after caval ligation⁸ make it appear that, in those individuals with extensive or recurrent thrombosis, permanent caval obstruction certainly is likely to increase the venous hypertension. Streuter and Paine⁹ have therefore recently suggested temporary occlusion of the vena cava with a single loose catgut ligature as an alternative procedure. They have demonstrated that if the catgut is tied loosely to prevent crushing the intima, the cava will open again in 6 to 8 weeks after the ligature absorbs. This should give satisfactory protection while it is needed while reducing the crippling effects of chronic venous obstruction. Even temporary caval obstruction produces venous stasis below it, and increases the tendency to progression of the already existing thrombotic process. Therefore, anticoagulants should be used after caval ligation to prevent progressive occlusion of now vital venous collaterals. Elevation of the legs and pelvis will help prevent stasis and further thrombosis.

What, then, are the indications for vena caval ligation?

1. *Septic pelvic thrombophlebitis.* Anticoagulants are of no value in preventing serious infected emboli. Ligation of the inferior cava and ovarian veins is the only effective means of protection.

2. *Recurrent emboli while on anticoagulants.* These two indications are absolute. The third is somewhat more controversial.

3. *Ligation of the cava after every pulmonary embolus.* The chances of a subsequent fatal embolus after sublethal infarct are considerable. In a study of 172,888 post-operative patients at the Mayo Clinic, Barker et al.¹⁰ came to the following conclusions: If a patient has had a nonfatal embolus, he has one chance in five of a subsequent fatal one, three chances in ten of further embolization, fatal or nonfatal, and one chance in two of further thrombo-embolic phenomena.

8. Shea, P. C., and Robertson, R. L.: Late Sequelae of Inferior Vena Cava Ligation, *Surg., Gynec. & Obst.* 93: 153, 1951.

9. Streuter, M. A., and Paine, J. R.: Temporary Occlusion of the Inferior Vena Cava Suggested as a Means of Treatment in Thrombo-Embolism Requiring Cava Ligation, *Surgery* 34: 20, 1953.

10. Barker, N. W.; Nygaard, Walters W., and Priestley, J. T.: A Statistical Study of Postoperative Venous Thrombosis and Embolism, *Proc. Staff Meet., Mayo Clin.* 16: 17, 1941.

If all embolisms preceded by nonfatal emboli could be prevented, then the total number of fatal emboli could be reduced by more than a third.

If the chances of death are 20% after a pulmonary infarct, should we not use more frequently the most effective procedure we now have for protection—ligation of the inferior vena cava?

Cancer of the Mouth—Mouth cancer metastasizes usually in an orderly and predictable fashion to the lymph nodes in the neck. Cancer in the anterior third of the mouth usually involves the superficial lymph node in the submaxillary triangle on the same side. The lower lip and floor of the mouth sometimes involve the submental node and rarely the node above the head of the clavicle without any intervening lymph node involvement. The upper lip sometimes involves the node in the cheek or maybe behind the posterior belly of the digastric muscle. The middle third of the mouth, including the tongue, most commonly involves the deep node at the bifurcation of the carotid artery. This is the most important deep cervical lymph node in the neck. The posterior third of the mouth, including the base of the tongue and soft palate, frequently involves the high nodes behind and adjacent to the parotid salivary gland as well as the node at the carotid bifurcation. They also extend bilaterally when in the midline.

The tongue is the most commonly involved area in the mouth and probably has the most serious consequences. Fortunately cancer usually occurs on the lateral border of the tongue and most often in the middle third. It almost never occurs on the dorsum of the tongue, except at the base, unless associated with diffuse syphilitic glossitis. In advanced stages the entire tongue may become involved with resultant pain, fixation and salivation.

Cancer in the buccal mucosa may extend directly through the cheek or invade the masseter muscle and cause varying degrees of trismus. It may involve the mandible and result in its loss or osteomyelitis.

Cancer in the floor of the mouth quickly extends directly into the submucosa and usually involves the submaxillary and sublingual salivary glands.

In the hard palate the antrum is frequently invaded.

The treatment of early cancer of the mouth may be successfully accomplished either by surgical or radiological measures. Many times one is used when the other has failed. Decision as to choice of treatment is frequently not easy because, in addition to the consideration of the above related biological aspect of the local disease, the biology of the patient as a whole and even the social and economic considerations have to be taken into account. With the improvement in surgical care before, during and after the operation, few tumors in the mouth can be considered inoperable provided one is willing to sacrifice face and function sufficiently. Scarborough, J. M. A. Georgia, Nov. '54.

THE LOWER EXTREMITY STASIS SYNDROME

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A frequent complication of phlebitis is the development of swelling of the lower extremity, sometimes associated with pain, a weeping rash, or ulceration. These symptoms are due to damage to the valves of the vein which ordinarily prevent reflux of blood and likewise play a part in the propulsion of blood from the extremity toward the heart. As a result of defects of the valves there is increased venous pressure which results in stasis of the blood. For this reason, a term preferable to "post-phlebitic syndrome" is "lower extremity stasis syndrome."

It should be borne in mind that this lower extremity stasis syndrome sometimes occurs without previous phlebitis. It is frequently found in association with varicose veins and for this reason is sometimes mistakenly referred to as varicose ulcer. This term is a misnomer and should not be employed, for the fundamental difficulty causing the ulceration is not the varicose veins themselves but underlying defects involving the valves of the deep veins. These defective valves may be congenital.

Symptoms of the stasis syndrome present a challenge to the attending physician for they have for many years been recognized as an extremely difficult problem. The problem can be handled quite satisfactorily, however, if the proper concept of the fundamental disorder is held. Treatment requires considerable patience and perseverance on the part of both doctor and patient but eventually complete freedom of symptoms can usually be achieved. Treatment depends upon elimination of stasis and can be accomplished by ligation of abnormally dilated communicating veins between superficial and deep systems, together with operative removal of associated varicose veins at the same time. It is important to recognize that before operation can be undertaken the ulcer must be healed. This can be accomplished either by bed rest or by the use of pressure bandages. One of the most effective forms of pressure bandage is the

so-called Unna's paste bandage, applied directly to the skin. The use of elastic bandages over this offers additional support. Such a bandage can be used effectively to promote healing of the ulcer preparatory for operation; can be used in the postoperative management of the patient; and when operation is contraindicated can be used as effective palliative treatment for an indefinite period of time. The boots need be changed no more often, in many cases, than once a month.

It is my opinion that operative treatment should be undertaken whenever possible, but when not possible, conservative management with the boot should be employed. I discourage the use of injections, for, although they sometimes effectively obliterate the superficial veins, there is a potential hazard of creating thrombosis in the deep veins as well.

Early Diagnosis in Leprosy—What are the symptoms that may bring patients to the doctor other than a skin manifestation which is commonly unnoticed or disregarded? They complain of paresthesias, of the hands and feet falling asleep, or being heavy and swollen. Not infrequently they present themselves with a burn of the extremity which they did not feel when it occurred.

Lacophthalmos, droop of an angle of the upper lip, atony or slight atrophy of the muscles of the interosseous spaces, or of the thenar or hypothenar eminences, and thickened nerve trunks may be early neurological signs of disease.

Since the onset of leprosy is insidious and the early lesions are frequently unnoticed by the patient, and symptoms are minor or thought to be insignificant by both the patient and the doctor, we must be as careful as we are in the early diagnosis of cancer and keep our index of suspicion high. There are other ways of finding out the early case which should be emphasized and popularized. If we can educate the patient and the family and the public to realize that leprosy is just another disease then we can get cooperation from the patient and the family and close contacts. They can be examined periodically with the intent of examination clearly understood by both contact and doctor. Social workers can help more effectively and early cases become recognized. Treatment may then be started and the patient prevented from developing disabling and disfiguring sequelae. The danger to other contacts is thus minimized.—*McLean, J. Louisiana State M. Soc., Nov. '54.*

JOURNAL EXCERPTS

Poliomyelitis—To some extent at least, poliomyelitis is a preventable disease and is less likely to be contracted by susceptible persons if proper precautions are observed. While much is not yet known about the transmission of poliomyelitis from one person to another, at least two definite methods by which the disease may be spread are known. The first and probably the most important is by direct contact with a patient who is a carrier of the infective virus, three types of which are known to cause the disease. The infective virus of poliomyelitis is present in the secretions of the respiratory tract of patients having the disease, and may be spread to others through droplets from the nose and throat by coughing, sneezing, or by any other method of coming in contact with nose or throat secretions of a patient.

A second known and important method by which poliomyelitis may be spread is by contact with the body excretions of patients or others who are carriers of the active poliomyelitis virus—it may be considered always to be present in the intestinal tract of those having the disease and during the acute stage of illness. It is possible, therefore, that contaminated food, milk, or water may be a means of transmission. Cleanliness, therefore, is an important prophylactic factor, and children should be taught to wash their hands carefully before eating and after going to the toilet. It should be remembered that children or adults may have poliomyelitis in such mild form that a diagnosis of the disease cannot be made or may not even be suspected; yet it is possible for such persons to transmit the disease to others who may have it in more severe form.

Another important precaution against the spread of poliomyelitis, particularly in communities where one or more cases have occurred, is to keep children away from crowds. The fact that many persons may be carriers of the infective virus without having any definite symptoms of the disease justifies this precaution, but it does not mean that children should be denied the companionship of their usual playmates in their neighborhood when no known cases have occurred in the neighborhood.

Fatigue through overexertion should be avoided by both children and adults during the polio season, particularly when cases have occurred in the community. Regular play and rest periods are important, particularly for young children, as a preventive procedure. The average well child will exercise to the point of exhaustion before realizing he is tired. Excessive fatigue lowers the resistance to polio and other infectious diseases, and should be avoided or controlled to the greatest extent possible.—*Foard, North Carolina M. J., Oct. '54.*

Emotional Aspects of Head Injury—While it is generally accepted that an injured person is entitled to some financial compensation, it is a gross

over-simplification to assume that all post-traumatic neuroses are motivated by a desire for financial gain. The amount of money provided by our industrial compensation laws is always a small fraction of what the injured person could be earning if working. When money is among the psychogenic factors in a post-traumatic neurosis, its significance is often symbolic, being a tangible token that the company cares enough for the individual to want to do something to help. The same assurance of caring could be provided far more economically by supplying psychotherapy to the injured person. Fear and resentment are more easily prevented than cured, and it is these emotions rather than greed that usually motivate injured persons in their claims for damages.

In considering how an accident can upset the emotional equilibrium of a person, we find a useful parallel in the physical field of heart disease. Any heart has a certain amount of reserve strength that enables it to meet the demands of life. When the demands exceed the limit of cardiac reserve, decompensation results, the heart being no longer able to do its work successfully. So it is with emotional strength. A person may be able to meet life's ordinary difficulties without exceeding his emotional reserve strength, but an excessive demand for emotional strength may precipitate the state of emotional decompensation that we call neurosis, or, in its extreme form, psychosis. The person's inherited emotional characteristics, together with his life's experiences, especially those that affected his emotional development, are important in determining just how much reserve emotional strength is present to meet life's demands. A person whose emotional development has been retarded by unfavorable influences in childhood will have less emotional strength to meet any unusual demand. Such individuals may even find life's ordinary everyday difficulties enough of a problem to produce emotional decompensation, or neurotic symptoms. Others can stand a considerable amount of strain without giving evidence of distress. But everyone has his limits of emotional reserve strength. The more sudden and the more severe the emotional trauma or strain, the more likely it is to produce a state of emotional decompensation manifesting itself in neurotic symptoms. Of all the difficult experiences in life, injury, or the threat of injury or incapacitation or death, is among the most difficult to tolerate. This is particularly true when the injury involves the head, due to the pre-eminently important role that we customarily assign the head in the conduct of our lives. In our complex competitive civilization, anyone whose brain is incapable of adequate function is at a hopeless disadvantage, and to almost everyone the idea of injury to the brain carries the connotation of possible inability to carry on life's usual activities.—*Merrill, South. M. J., Nov. '54,*

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THE MONTH IN WASHINGTON

With the change in control of Congress, there naturally will be a major reshuffling of all committees, including those handling medical and health legislation. A new chairman moves to the top, and at the bottom a few Republican members drop off, to be replaced by an equal number of Democrats. In a Congress so evenly divided, domination of this committee machinery is a vital asset.

A majority of the Democrats taking over committee chairmanships in January will be returning to the same jobs they held when their party was in power before, but the situation is a little different on the two committees most important in health and medical legislation. It will be the first time either of these chairmen has had the responsibility of running the full committee, although both have been involved in medical legislation for many years. Both are veteran legislators and are Southerners. They are Senator Lister Hill of Alabama, who replaces Senator H. Alexander Smith of New Jersey as chairman of the Labor and Welfare Committee, and Rep. Percy Priest of Tennessee, who succeeds Chairman Charles Wolverton, also of New Jersey, on the Interstate and Foreign Commerce Committee.

By reason of seniority, Senator James Murray of Montana is in line for the Labor and Welfare Committee chairmanship. However, he has announced that he prefers to run the Interior and Insular Affairs Committee, thus turning over the other chairmanship to Senator Hill. Senator Murray, as a sponsor of national compulsory health insurance, and as a chairman and member of its committee that held such turbulent hearings on this subject, became well known to the medical profession.

Senator Hill, the son of a physician, has been in Congress for 30 years—14 in the House before he came to the Senate. He was a co-sponsor of the Hill-Burton hospital construction program, perhaps the most important piece of medical legislation enacted since World War II.

Presumably the Senate committee's Health Subcommittee again will be headed by Senator Herbert Lehman of New York, who handled this task during the last Democratic Congress, the 82nd. Last session the Health Subcommittee chairman was Senator William Purtell of Connecticut.

Mr. Priest is a former school teacher and newspaperman. He has been in the House for seven uninterrupted terms. In 1951 he was chairman of the Commerce Committee's Health Subcommittee; the subcommittee system was abolished by the committee in 1952. Since then he has taken an extremely active part in committee work in the health and medical fields.

The Hill and Priest committees will handle most health legislation with the exception of military, veteran and appropriation bills. For example, they will be in charge of reinsurance if it is reintroduced, as well as most health-medical bills originating in the Department of Health, Education and Welfare.

A number of other committee changes of importance to medical legislation are scheduled. Rep. Edith Nourse Rogers of Massachusetts, a veteran of 29 years in the House, loses the chairmanship of the Veterans Affairs Committee. She is being succeeded by Rep. Olin Teague of Texas, who was elected to Congress for the first time while he was completing his six-year Army duty in 1946.

The House Appropriations Committee chairmanship goes from Rep. John Taber of New York to Rep. Clarence Cannon of Missouri; both have the reputation of being economy-minded. Of considerable significance in medical appropriations is the change in the chairmanship of the subcommittee that handles money for the Department of Health, Education and Welfare. The chairman for the last two years, Rep. Fred Busbey of Illinois, carefully scrutinized all health appropriations, and effected many reductions. He was defeated for reelection. The prospective chairman of the subcommittee, Rep. John Fogarty of Rhode Island, repeatedly has intervened in the committee and on the House floor to restore money cut out by the subcommittee.

Chairman of the Armed Forces Committee in the Senate—where medical care for military dependents would be taken up—will be Senator Richard B. Russell of Georgia, replacing Senator Leverett Saltonstall of Massachusetts. On the House side, the Armed Forces chairmanship goes to the veteran Rep. Carl Vinson, also of Georgia. He replaces Rep. Dewey Short of Missouri.

Any bills proposing reorganization of the executive departments will come before Chairman John L. McClellan of Arkansas

in the Senate and Rep. William L. Dawson of Illinois in the House. They are succeeding Senator Joseph R. McCarthy of Wisconsin and Rep. Clare E. Hoffman of Michigan.

AMERICAN COLLEGE OF SURGEONS

Alabama Chapter Meeting
Montgomery, January 15

The Alabama Chapter of the American College of Surgeons will hold a one-day scientific meeting at the Whitley Hotel, Montgomery, on January 15.

Dr. John Cameron, Montgomery, Program Chairman, announces the following subjects and speakers for the morning session. The Histogenesis of Testicular Tumors by Edwin L. Scott, M. D., Montgomery; Some Aspects of the Acute Surgical Abdomen by Henry G. Hodo, M. D., Fayette; The Simplified Artificial Kidney; Its Development and Clinical Use by Capt. John R. Guarino, M. D., U. S. A. F. M. C., Gunter Air Force Base, Montgomery; Surgical Considerations in Amebiasis by Emmett B. Frazer, M. D., Mobile; Primary Repair of the Mandible Following Resection for Tumor by William Harris, M. D., and William Tucker, M. D., Birmingham; The Technique and Uses of Pulmonary Segmental Resection by James D. Hardy, M. D., Department of Surgery, University of Tennessee College of Medicine; and The Diagnosis and Treatment of Segmental Arterial Disease by Sterling Edwards, M. D., Birmingham.

The afternoon session will include the following papers. Ascaris Peritonitis, Secondary to Perforated Appendix by Philip B. Moss, M. D., Selma; An Evaluation of Surgical Treatment of Cancer of the Cervix by Robert Ross, M. D., Professor of Obstetrics and Gynecology, University of North Carolina Medical School; Thoracic Surgical Problems of Infancy and Childhood by James G. Donald, M. D., Mobile. A Symposium on Intestinal Obstruction will close the scientific session. James D. Hardy, M. D., will be moderator; and participants will be Arthur A. Wood, M. D., Mobile; Hugh M. Linder, M. D., Birmingham, and Luther L. Hill, M. D., Montgomery. A social hour and dinner will follow.

Members of the Medical Association are cordially invited to attend this meeting.

MAIL THE CARD!

The new, 19th edition of the American Medical Directory is now in galley form, and it is expected that the book will be ready for delivery about the middle of 1955. The previous edition was issued in 1950. Since that time it has not been possible to publish a new edition because changes in the membership structure of the American Medical Association made it difficult to obtain an accurate list of members.

Within the next few weeks a directory information card will have been mailed to every physician in the United States, its dependencies, and Canada, requesting information to be used in compiling the new directory. Physicians receiving an information card should fill it out and return it promptly regardless of whether any change has occurred in any of the points on which information is requested. It is urged that physicians also fill out the right half of the card, which section requests information to be used exclusively for statistical purposes. Even if a physician has sent in similar information recently, he should mail the card promptly to the Directory Department of the American Medical Association to insure an accurate listing of his name and address. There is no charge for publishing the data, nor are physicians obligated in any way.

The directory is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States. In it, as in no other published directory, one may find dependable data concerning physicians, hospitals, medical organizations, and activities. It provides full information on medical schools, specialization in the fields of medical practice, memberships in special medical societies, tabulation of medical journals and libraries, and statistics on the distribution of physicians and hospitals in the United States.

BLUE SHIELD PASSES THIRTY MILLION MARK

We note that Blue Shield Plans have passed the 30 million mark in enrollment, nationally. The announcement came from the Blue Shield Commission, national office in Chicago, which compiles national statistics based on data received from the individual Plans.

Since Blue Shield is the medical profes-

sion's own program, and a very young one at that, physicians can well be proud of this remarkable evidence of its solid popularity with the American public. And growth still continues at an amazing pace. More than three million new members were added in the past 12 months alone.

Significant, at the present writing, is certain Federal legislation, now in the planning stage and scheduled for presentation to Congress early in the forthcoming session, designed to throw the Government's weight into support of voluntary medical care pre-payment, rather than in support of compulsory, government-controlled insurance such as was the long-time goal of the New Deal and Fair Deal in Washington.

The legislation referred to is an extension and amplification of the Carlson Bill (S. 3803) which was introduced near the close of the 83rd Congress, too late for congressional action. The proposal, in substance, is for the Government to provide payroll deduction facilities for all Federal employees desiring to obtain medical and hospital care insurance through voluntary plans (Blue Cross and Blue Shield, or commercial carriers), and to contribute a portion of the premium cost for each employee.

Even without payroll deduction or any contribution, more than 1,300,000 Federal Government employees (with their dependents) are already enrolled in Blue Cross, and more than 800,000 in Blue Shield. Under the new, more favorable arrangement, it is expected that most of the entire Federal civilian payroll (2,200,000 employees, totaling, with their dependents, 5,300,000 people) will take advantage of this opportunity.

Chosen to be the 30 millionth Blue Shield member was a Federal employee, Elmer T. Linstrom, a postal carrier in Omaha, Nebraska. The occasion was celebrated by a ceremony on October 19, in Omaha, at which Dr. L. Howard Schriver of Cincinnati, President of the national Blue Shield Medical Care Plans, gave the principal address. The occasion also marked the tenth anniversary of the Blue Shield Plan in Nebraska.

Dr. Schriver called upon physicians everywhere to continue to strengthen their support of Blue Shield in their local areas in order to assure its continued dynamic growth and thus top, once and for all, the pressures which still exist for a nationalized governmental health insurance scheme. He

mentioned that latest tabulations show a total of \$273,723,925 paid to physicians by the Blue Shield Plans during the 12 months ended June 30, 1954. This represented more than 80 per cent of total income of the Plans.

Pointing up the present Administration's real interest in and sympathy with the Blue Shield movement was a letter addressed to Mr. Linstrom by Nelson A. Rockefeller, Under Secretary of the Department of Health, Education and Welfare. Mr. Rockefeller said, in part:

"It is a pleasure to send you greetings as you become the 30 millionth Blue Shield member . . . You can feel gratification in having provided this protection for the health of your family. It has

national significance as a milestone. . . . I note that you are a Federal Government employee. As you probably know, the President has proposed a prepayment health care plan for Government employees similar to those maintained by many industrial organizations. It is my sincere hope that the Administration's plans for aiding all Federal employees in providing protection against health costs soon will become a reality."

Such recognition was not won by indifference but by the active support of Blue Shield by the great majority of the nation's physicians. It can be maintained only by even more active and wholehearted cooperation on the part of the medical profession. And it *must* be maintained, if the free practice of medicine is to continue.

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

THANK GOODNESS

W. A. Dozier, Jr.

Director of Public Relations

Thank goodness, someone with authority has said it. For some time now there has been far too much emphasis on a universal level, the sameness of and for all, and mediocrity. Such an overwhelming trend in our thinking, as this has been, can only lead to a lowering of standards.

Perhaps the epitome of this thinking—or argument as it was used at that time—was presented by a strongly partisan person who was discussing the merits of a political candidate. The greatest tribute and clinching factor in the speaker's mind was the fact that the candidate was just a common man like all the rest of us. "You can walk down the street and meet hundreds just like him," he said. The all important question that arises, however, is simply "Do we want such a person for one of our leaders?" It would seem that the answer must be an emphatic "No!"

This type of fuzzy thinking—the common man argument—was used for a long time, and no one challenged it to any noticeable degree. The Honorable Herbert Hoover, at a reception given by the state of Iowa on his eightieth birthday, delivered a speech in which he made a few remarks on the matter. The following excerpt from that speech should be remembered often by all of us when examining the political philosophy of

various candidates. In fact the remarks are apropos when examining many of life's situations. Among other things Mr. Hoover said:

"Among the delusions offered us by fuzzy-minded people is that imaginary creature, the Common Man. It is dinned into us that this is the Century of the Common Man. The whole idea is another cousin of the Soviet proletariat. The Uncommon Man is to be whittled down to size. It is the negation of individual dignity and a slogan of mediocrity and uniformity.

"The Common Man dogma may be of use as a vote-getting apparatus. It supposedly proves the humility of demagogues.

"The greatest strides of human progress have come from Uncommon Men and Women. You have perhaps heard of George Washington, Abraham Lincoln or Thomas Edison. They were humble in origin, but that was not their greatness.

"The humor of it is that when we get sick, we want an uncommon doctor. When we go to war, we yearn for an uncommon general or admiral. When we choose the President of a University, we want an uncommon educator.

"The imperative need of this nation at all times is the leadership of the Uncommon Men or Women. We need men and women who cannot be intimidated, who are not

concerned with applause meters, nor those who sell tomorrow for cheers today.

"Such leaders are not to be made like queen bees. They must rise by their own merits. America recognizes no frozen social stratifications which prevent this free rise of every individual. They rise by merit from our shops and farms. They rise from the thirty-five million boys and girls in our schools and colleges. That they have the determination to rise is the glorious promise

of leadership among free men.

"A nation is strong or weak, it thrives or perishes upon what it believes to be true. If our youth is rightly instructed in the faith of our fathers; in the traditions of our country; in the dignity of each individual man, then our power will be stronger than any weapon of destruction that men can devise."

Thank goodness, someone who may be listened to has said it!

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

DIABETES

THE IMPORTANCE OF EARLY DIAGNOSIS

Contributed by

Nadine Pitts

Director

Division of Public Health Education

Good health would undoubtedly be a great deal more widespread if every disease which attacks the human body made known its presence at the very beginning. Unfortunately, however, such is not always the case. In fact, a person may be feeling "ship shape," and quite unaware that, all the while, a virus, bacteria or a malfunction of some vital body organ is taking firm hold. Sometimes there may be feeble warnings, but so weak are they that they are all too often dismissed and forgotten—if, indeed, they are noticed at all. It is true enough that some temporary conditions deserve just such dismissal. Yet such warnings may be evils lurking in the shadows. They may well be the early symptoms of an insidious disease. Yes, symptoms, not at all like the frequent and often excruciating abdominal pains which accompany appendicitis, or the bright red rash characteristic of measles, but symptoms just the same. But such signs are not always accompanied by pain and discomfort. And if they are remembered, it is only afterward, when more obvious and urgent symptoms of this insidious disease appear at an advanced, more serious stage.

Herein lies the largest single stumbling block to early diagnosis and treatment of

one of the country's most prevalent chronic diseases—diabetes mellitus. You may have heard it called the "sugar" disease, or "sugar" diabetes. The name diabetes is derived from a Greek word meaning "fountain." Thus, the illness literally pours out from the body considerable amounts of urine containing vitally needed sugar. Three symptoms—thirst, excessive urination and hunger—are found in most severe, untreated cases. But in other persons who are victims, diabetes may show itself only by a tired and "rundown" feeling, a loss of weight, itching or by slow-healing infections. In other words, signs that could be and often are interpreted merely as some minor temporary complaint.

A person who has diabetes is called a diabetic. A diabetic is unable to make full use of certain kinds of foods. His body cannot change sugars and starches, or carbohydrates, into energy and store them for future use to the same extent as the average person's body does. This inability comes from a lack of insulin. Insulin is a substance produced by the pancreas, a gland lying behind the stomach. A long-held theory is that diabetes results when the pancreas does not produce enough insulin. A recent amendment to this theory is that the disease can also result when the pancreas does produce enough insulin for usual conditions but not enough for excessive demands.

Since a diabetic cannot use sugars and starches properly, the sugar content of his blood is high and the kidneys work overtime to get rid of the excess sugar. Therefore, he is always thirsty and drinks large quantities

of water. This leads to frequent urination. Moreover, as he is unable to obtain the full amount of nourishment from sugars and starchy foods, he is always hungry.

How many diabetics are there in the United States? There are no accurate figures, but the latest estimates place the number of known cases at more than a million. But that is not the whole picture. It is also estimated that there are a million more persons who have diabetes and do not know it! These estimates are based on a study conducted by the United States Public Health Service in Oxford, Massachusetts. This particular community, near Boston, had several conditions to recommend it, according to Stephen M. Spencer in his book *Wonders of Modern Medicine*. The age distribution of its people fit the national pattern within one per cent. The families fell into a fairly representative economic level. And the community was diabetes-conscious because of the work of an Oxford native—Dr. Elliott P. Joslin of Boston. At the age of 84, Dr. Joslin had treated nearly 30,000 diabetics. Furthermore, for years he had urged an intensive search for unknown diabetics. A team of Health Service workers tested more than seventy per cent of that community's five thousand residents. The findings of this mass survey, the first of its kind, revealed forty known cases of diabetes, and thirty that had not been known. Therefore, if the same rate holds true for the country as a whole, the diabetic population in 1952 ranged between 2,184,000 and 2,652,000 persons—including approximately one million whose illness had never been diagnosed.

The particular tragedy of these undiagnosed cases is the fact that, among the serious diseases, there are few other ailments which are more susceptible to specific medical management—management which, even in the absence of cure, prolongs life, increases efficiency, protects earning power, minimizes disability and adds to the joy of living! In the not too distant past, diabetes was a "mystery" disease. Today, however, research has dispelled much of the "mystery." And the preparation of insulin from the pancreas of animals for diabetic treatment in 1921 by Drs. Frederick Grant Banting and Charles H. Best, two Canadian scientists, is considered one of the great medical discoveries of all times. Almost overnight, the use of insulin turned many starved diabetics into practically normal persons.

The importance of finding and treating diabetes is highlighted by the fact that diabetes was twenty-seventh among the causes of death in this country in 1900, when doctors' only weapon against the disease was strict dieting. However, in 1945, diabetes ranked as the eighth leading cause of death in the United States, despite the fact that insulin was prolonging life for millions of recognized diabetic patients. And in Alabama, in 1953, diabetes was listed as primary cause of death for 343 persons, as compared with 328 deaths from this cause in 1952, the year before. During the five year period 1947 through 1951, Alabama recorded an average of 339 deaths a year from diabetes. This increase is attributed to the change in life expectancy: as more persons reach potential diabetes age, that is middle and old age, the number of persons with diabetes increases.

There is still another reason why it is important to find diabetes early. The part the pancreas plays in the manufacture of insulin and the lack of a sufficient amount of insulin in the diabetic have already been discussed. However, what has not been mentioned are the irregular structures in the pancreas which are composed of cells smaller than the ordinary cells in that organ of the body. The name given to these structures is the islands of Langerhans. These masses of cells are thought to produce an internal secretion which is connected with the metabolism of carbohydrates, and the degeneration of these irregular structures is one of the causes of diabetes. In the diabetic pancreas these island cells are thought to be in a constant process of destruction and regeneration, with destruction eventually dominating, or winning the struggle. However, there is experimental evidence that the destruction of the islands of Langerhans in diabetics can be reversed. Three scientists, Dr. Martin H. Reinberg, Dr. Paul O. Greeley and Mary S. Littlefield, writing in the April 5, 1952 issue of the *Journal of the American Medical Association*, report that proper, intensive treatment of young diabetic persons with more resilient tissues may bring about appreciable regeneration of damaged island cells. Thus, prompt discovery of the disease becomes apparent. "It is true that there are many more diabetics in the age group over 40, but the younger age groups must be thoroughly investigated if diabetes is to be detected early," according to these scientists.

Unfortunately, although intensive management is most promising when begun at the onset of the disease, the treatment of diabetes is now too often postponed beyond the theoretical period of reversing the destruction of the pancreas' island cells.

Which brings us back again to the crux of the problem: the need to find and institute treatment for those one million persons who are unaware that they are victims of diabetes. But through the "dark clouds," there shines a bright ray of hope. That ray of hope is the detection drive sponsored each year during Diabetes Week by the American Diabetes Association. The Association is an organization of physicians who cooperate with local medical societies and laymen in various communities in drives to ferret out unknown cases. Diabetes Week, usually held during the middle of November, gets its start in many states with an official proclamation of its observance. Although the week has been observed in some states since 1948, Alabama to date has not joined ranks with many other states in official observance of Diabetes Week and its accompanying detection drive.

Detection drives employ several methods to determine the presence of diabetes. Perhaps the simplest of these is a test of the amount of sugar in the urine, or a urinalysis. Another is a blood sugar test. The invention of a device called a clinitron, which is able to screen tests on a mass scale, has been invaluable. Finally, there is a method whereby a person can perform his own test, which, of course, often has to be supplemented later by laboratory tests for the most complete and thorough diagnosis. This self-testing method has been approved by the American Medical Association and acclaimed by that group as a procedure which any "intelligent layman can employ without resorting to self-diagnosis in the professional sense."

The experience of the town Virginia, Minnesota, is an example of what can be done in this regard. Of the town's 12,000 population, almost 10,000 or more than 81 per cent, were screened for hidden diabetes. The Chamber of Commerce under the direction of the County Medical Society, with more than 250 volunteers, made a house-to-house canvass. Of these 10,000 persons, at least 50 persons with previously unrecognized diabetes were detected.

Even if your town does not conduct an

annual mass detection program, you need not remain "in the dark" about whether you have diabetes. You can ask your doctor to include a diabetes test in a routine physical checkup. Or if you do not make a practice of having regular checkups, you can request such a test during an occasional office visit for a specific ailment.

Certainly, the rewards of early detection of diabetes are great. The possibilities of reversing the destruction of the insulin-producing cells in the pancreas stands at the top of the list. And next in line is the evidence that treatment in the mild stages may stave off some of diabetes' dreaded complications, such as blindness, kidney trouble, heart attacks, and gangrene.

The "detection" battle might be said to amount to little more than a skirmish up to this point. Victory will come when more communities set their sights on ferreting out the unrecognized diabetics in their midst.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

September 1954

Examinations for diphtheria bacilli and Vincent's	288
Agglutination tests	1,012
Typhoid cultures (blood, feces, urine and other)	668
Brucella cultures	3
Examinations for malaria	158
Examinations for intestinal parasites	3,541
Serologic tests for syphilis (blood and spinal fluid)	27,201
Darkfield examinations	4
Examinations for gonococci	1,690
Examinations for tubercle bacilli	3,203
Examinations for meningococci	0
Examinations for Negri bodies	89
Water examinations	1,707
Milk and dairy products examinations	5,592
Miscellaneous	1,863
Total	47,019

NEXT MEETING OF THE ASSOCIATION MONTGOMERY APRIL 21, 22, 23, 1955
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BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

	Aug.	Sept.	E. E. [*] Sept.
Typhoid and paratyphoid fever	8	10	8
Undulant fever	1	2	3
Meningitis	8	8	7
Scarlet fever	11	18	36
Whooping cough	60	18	39
Diphtheria	29	19	42
Tetanus	0	4	6
Tuberculosis	188	127	223
Tularemia	0	0	0
Amebic dysentery	2	1	2
Malaria	1	1	18
Influenza	56	36	70
Smallpox	0	0	0
Measles	55	13	22
Poliomyelitis	68	63	48
Encephalitis	1	3	1
Chickenpox	3	9	5
Typhus fever	4	3	13
Mumps	37	34	19
Cancer	344	452	340
Pellagra	1	1	2
Pneumonia	117	144	74
Syphilis	139	136	550
Chancroid	10	9	12
Gonorrhea	542	353	467
Rabies—Human cases	0	0	0
Positive animal heads	17	28	0

As reported by physicians and including deaths not reported as cases.

^{*}E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF SANITATION

Arthur N. Beck, M. S. in S. E., Director

SANITARY CONTROL OF OYSTER GROWING AREAS

Contributed by

Paul Pate, B. S.

Public Health Engineer

There are about one hundred described species of oysters but only about 10 per cent of these species are commonly taken for food. Each species differs from the others in its practical biology. These peculiarities must be considered in detail in studying problems of culture, conservation, pollution, and purification of the oyster. The commercial oyster of Alabama is the same as that of the Atlantic and Gulf Coast States. Its scientific name is *Crassostrea virginica*.

OYSTER GROWTH AND DEVELOPMENT

Although millions of people have eaten oysters, very few know anything about them except that they are good to eat. Yet the story of their growth and development from an egg, too small to be seen with the naked eye, into a mature animal is an interesting example of nature's wonderful handiwork.

To understand better the control meas-

ures necessary for oyster growing we must understand how the oyster lives.

WHERE OYSTERS GROW

The natural habitat or growing area of the oyster is around the mouths of streams where they enter the sea or salt water and where the salt and fresh waters are mixed in tidal movements of the oceans. Oysters do not thrive and grow well in waters which are too fresh or too salty. Oysters require water having from 30 to 60 per cent of the ocean's salinity, and they also require food and a hard bottom for normal growth and reproduction.

HOW THE OYSTER LIVES

Upon examination of the shell we find that it is composed of two parts or valves, the lower valve being deeply concave while the upper valve is relatively flat, hence the reason for the name bivalve mollusca. The lower valve forms a cup-shaped bed in which the oyster lies. The two valves, joined at the base by an elastic ligament which has a tendency to loosen, will open unless they are kept closed by the big muscle which biologists call the adductor muscle. This muscle is known to oystermen as the eye.

Each valve is made up of three layers: an outer layer, a middle layer, which is made up of carbonated lime, and an inner layer of mother-of-pearl, which is very hard and smooth. The outside of the shell is rough and irregular in shape but upon close examination it is found that the shells fit together so closely and accurately that when they are closed a drop of water will not leak through. The part of the oyster that protrudes between the valves is known as the mantle. The principal function of the mantle is to secrete or build the shell. The edge of the mantle builds the outer and middle layer of the shell, the mother-of-pearl is built by the entire organ.

Upon opening the oyster it will be noticed that there are two flaps, located between the body and each shell or valve. These flaps consist of narrow, fringe-like filaments joined together, forming a very fine sieve or strainer. These flaps are known as gills and are a very important part of the oyster. Very small hair-like whips or cilia cover the surface of the gills and by their constant movement to and fro a current of water is drawn through the open mouth of the oyster. This water is drawn through the sur-

face of the gills and is forced through the oyster and out of the oyster at a point of the body situated farthest from the mouth. As the water passes through the gills, the oyster obtains the oxygen it needs to live. These gills act in the same manner as a fish's gills, so that the oyster can breathe.

In addition to breathing, the gills play a very important part in the feeding of the oyster. The microscopic life and small suspended particles are trapped by the gills as the water passes through the oyster. The food is passed along the surface of the gill by the movements of the tiny hair-like cilia until they reach the mouth. The food, consisting mostly of microscopic plants known as diatoms or marine plankton, is forced into the mouth. The coarse particles, such as sand or other foreign matter, do not pass through the gills but are thrown off as waste by the oyster.

The gills are very efficient under normal conditions. One oyster may pump as much as 100 gallons of water through its system during a period of one day. Due to the nature of the feeding habits of the oyster and the large quantities of water consumed by it there exists the danger of pathogenic or other harmful bacteria being drawn into the body of the oyster and remain as long as these bacteria are present in the water over the oyster growing areas. The oyster will concentrate these bacteria within its system due to its feeding habits. If oysters are taken from waters contaminated by these harmful bacteria, they can and will be the carrier of disease and may cause serious outbreaks of typhoid fever or other related diseases. Factors to be considered in determining areas from which oysters may be marketed should be based on information obtained by technically qualified and competent persons or agencies.

In making a decision to permit the harvesting of oysters from a growing area, the following factors must be considered: (1) the nature and amount of pollution in the water over the growing areas, and (2) the nature and amount of potential pollution that can contaminate the water over the growing areas. These may be accomplished by conducting a sanitary survey of the areas in question. This survey should include (1) physical appraisal and (2) bacteriologic examinations.

THE SANITARY SURVEY

Adequate charts and maps of the growing areas and adjacent shorelines are necessary in making a good sanitary survey. On these maps and charts should be shown water depths over the growing areas, location of all streams entering near or over the growing area, and the location of towns along the bays or streams entering the growing areas. This survey should include all sources of pollution from the beaches, inland streams and towns located along the harbors and bays. All locations of public and private sewer outfalls should be known. The average quantity of domestic sewage and the degree of treatment should be known. The quantity of water entering the growing area from inland streams should be obtained. The tides and the direction of water currents within and around the growing areas are important as the currents can and are an important factor as to the direction in which the pollution may travel. These currents can contaminate one area and not harm another growing area only a few miles away.

The principal sources of pollution are normally (1) cities, towns, or small communities discharging sewage and trade waste into the growing areas, (2) homes along the shoreline or water sheds draining into the growing areas, and (3) inland streams contaminated from domestic sewage and trade waste.

Pollution from human sources should be considered to be much more serious than those from trade waste, cultivated fields, animals or marsh lands. However, each of the above sources should be studied before decisions are made to permit the harvesting of oysters for the market.

BACTERIOLOGIC EXAMINATIONS

Bacteriologic examinations of water over oyster growing areas should be made during the harvesting and marketing season as there is a difference between the summer and winter concentrations of coliform organisms in the water. The temperature of the water is important as it will control, to some extent, the rate of reproduction and the life of the harmful bacteria. The rainfall and time of year of the rainfall must be considered when pollution is so located that it will be carried over the growing areas by the increased flow of fresh water from inland rivers and streams.

In making bacteriologic examinations of the water, permanent sampling stations should be set up and located so that a series of samples may be obtained under the conditions as they exist during one or more market seasons. The sampling and bacteriologic examinations should be continued over a period of time necessary to establish the quality of the water over the growing areas.

In selecting a sampling station, consideration should be given to (1) the changing tide, (2) the direction of currents that flow over the growing areas, (3) temperature of the water, and (4) the density of the water. All of these factors must be considered in analyzing and interpreting the results obtained. Bacteriologic examinations should include waters adjacent to or near the growing areas. This information will assist in determining the potential danger of contamination of the oysters by the water flowing from the coastal areas that are adjacent or near the oyster growing areas.

Upon completion of the sanitary surveys, the growing areas should be classified as approved or restricted. Restricted areas may be subdivided and designated as moderately polluted or grossly polluted. The moderately polluted growing areas adjacent to approved areas should be examined as intensively as necessary to determine the presence and density of coliform organisms since these areas will be close to those areas from which oysters may be harvested.

GROSSLY POLLUTED AREAS

If the sanitary survey shows that the area is subject to the following conditions: (1) gross pollution by direct discharge of domestic sewage or other wastes, (2) is exposed continuously to slight direct contamination with human fecal discharge from nearby sources ashore, (3) if an area usually of good quality is exposed to occasional direct contamination with human fecal discharge, and (4) if the bacteriologic examinations indicate the degree of contamination is greater than that allowed for moderately polluted areas, the area shall be declared grossly polluted and the taking of oysters for market purposes should be prohibited.

MODERATELY POLLUTED RESTRICTED AREA

Upon completion of the sanitary and bacteriologic surveys, an area should be declared to be moderately polluted and restricted if it is shown that: (1) the areas lie

between grossly polluted and approved areas as regards exposure to and protection against fecal pollution; (2) the bacteriologic survey shows that the median bacteriologic content of the water expressed in terms of the most probable number (M.P.N.) of coliform organisms per 100 ml. lies between 70 and 700; and (3) the sanitary survey shows that such contamination is of human origin.

APPROVED OYSTER GROWING AREAS

Before approving an area for the marketing of oysters, the sanitary survey shall disclose no likelihood that human fecal discharges reach the area in dangerous concentrations or before sufficient time has elapsed to render such discharges innocuous. The water over the areas or portions of areas determined to be most probably exposed to fecal contamination shall not show the presence of organisms of the coliform group in excess of 70 per 100 ml. of water, expressed in terms of most probable numbers (M.P.N.) in a series of samples, over the growing areas. The water samples must be collected throughout the area during one or more complete harvesting seasons.

The samples must be collected at various stages of tides with consideration being given to all changes in weather conditions. Bacteriologic reexamination of the area should be made whenever sanitary surveys indicate that there may be a significant increase in the quantity of pollution entering the area which could contaminate the oysters.

RELAYING OF OYSTERS

Oysters may be taken from a polluted or restricted area and transferred to an approved area; however, this can be done only at the closed season for marketing. The relaying of oysters must be completed at least 15 days prior to the opening of the areas for marketing.

The transfer of oysters from polluted areas to approved growing areas can be done due to the nature of the feeding of the oyster. Due to the quantities of water that pass through the oyster, clean water can cleanse the oyster in the manner that polluted water can contaminate.

If oysters are transplanted from closed areas to open waters, it should be done in the warm months as the oyster will not feed when the water temperature is below approximately 55°F; therefore, if oysters

should be transplanted in waters below this temperature, they would not cleanse themselves until the temperature increased sufficiently for them to feed again.

CLOSED AREAS

Oyster growing areas that have been found by sanitary and bacteriologic surveys to be unfit for the harvesting and marketing of oysters should be posted, warning the public that the oysters are unsafe for human consumption and are not to be removed from such areas except for transplanting, which must be done under the supervision of proper agencies to prevent any oysters from these areas reaching the market.

The identification and separation of closed areas should be clearly defined and patrolled at frequent intervals to prevent illegal removal of oysters, and to prevent the polluted oysters from reaching the market and the consumer.

The steady reduction in mortality rates of tuberculosis is, in no small measure, due to social advances and to the great achievement of preventive no less than therapeutic measures.—*Philip Ellman, M. D., J. Roy. Inst. Pub. Health & Hyg., August 1954.*

Routine chest roentgenograms for patients admitted to the hospital are more productive than a routine survey on a general population of essentially normal persons. Figures vary tremendously according to the type of hospital, the type of patients admitted, and the care with which the roentgenograms are studied and reported by the roentgenologist.—*Morris H. Levine, M. D., and Stanley Crosbie, M. D., J. A. M. A., Sept. 18 1954.*

The importance of the tuberculin test in the program for the elimination of tuberculosis cannot be overestimated. The percentage of positive tuberculin reactors is an indirect measure of the amount of undetected open tuberculosis in the community. The presence of a positive tuberculin test pinpoints the individuals which comprise the group in which new active cases will develop. The discovery of a recent conversion from a negative to a positive tuberculin reaction means that there is a known or unknown active case among the converter's associates.—*David T. Smith, M. D., J. School Health, Sept. 1954.*

It is good economics for the well-to-do members of the community to participate in the programs designed to detect, help, and shelter the tuberculous individual who cannot afford to take care of himself.—*Rene J. Dubos, Ph. D., Am. Rev. Tuberc., July 1953.*

There has been a striking change in the tuberculosis picture over the past 25 years. A marked shift from female to male and also towards the older age groups both regarding morbidity and mortality has occurred. Tuberculosis is becoming increasingly a disease of people over 50 years of age and especially is this so in respect to males.—*G. C. Brink, M. D., Canad. J. Pub. Health, May 1954.*

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR AUGUST 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered During August 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Live births	7624	4780	2844	28.0	29.2	28.6
Stillbirths	184	91	93	23.6	22.7	23.4
Deaths	1961	1166	795	7.2	7.6	7.1
Infant deaths—						
under one year	222	113	109	29.1	30.6	30.2
under one month	175	94	81	23.0	24.3	22.4
Cause of Death						
Tuberculosis, 001-019	27	14	13	9.9	10.8	17.7
Syphilis, 020-029	4		4	1.5	1.9	4.5
Dysentery, 045-048	3		3	1.1	1.1	1.1
Diphtheria, 055	2		2	0.7	0.4	0.4
Whooping cough, 056					0.4	0.4
Meningoococcal infections, 057					0.4	
Poliomyelitis, 080, 081	7	6	1	2.6	2.6	1.1
Encephalitis, 082, 083					0.4	
Measles, 085	1	1		0.4		
Malaria, 110-117						0.4
Malignant neoplasms, 140, 205	249	170	79	91.5	94.3	87.7
Diabetes mellitus, 260	16	8	8	5.8	10.4	7.5
Pellagra, 281	2	2		0.7		0.4
Vascular lesions of central nervous system, 330-334	232	134	98	85.2	92.1	80.9
Other diseases of nervous system and organs of special sense, 340-398	18	10	8	6.6	8.5	9.0
Rheumatic fever, 400-402	1		1	0.4	1.1	1.1
Diseases of the heart, 410-434	462	321	141	169.7	183.8	
Hypertension with heart disease, 440-443	137	71	66	50.3	47.2	207.4
Diseases of the arteries, 450-456	34	25	9	12.5	16.0	12.4
Other diseases of circulatory system, 444-447, 460-468	32	19	13	11.8	12.6	12.8
Influenza, 480-483					1.1	2.3
Pneumonia, 490-493	54	22	32	19.4	14.8	16.6
Bronchitis, 500-502	3	3		1.1	1.1	
Appendicitis, 550-553	7	2	5	2.6	1.9	0.4
Intestinal obstruction and hernia, 560, 561, 570	11	8	3	4.0	4.1	4.1
Gastro-enteritis and colitis (under 2)						
571.0, 764	13	3	10	4.8	6.7	5.3
Cirrhosis of liver, 581	9	5	4	3.3	5.2	3.4
Diseases of pregnancy and childbirth, 640-689	11		11	14.1	16.1	14.2
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	3		3	3.8	2.5	2.6
Congenital malformations, 750-759	23	19	4	3.0	2.9	2.8
Accidental deaths, total, 800-962	139	91	48	51.1	56.8	19.3
Motor vehicle accidents, 810-835, 960	68	51	17	25.0	30.4	20.3
All other defined causes	394	210	184	144.8	143.0	143.4
Ill defined and unknown causes, 780-793, 795	70	22	48	25.7	31.6	31.2

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

AMERICAN MEDICAL ASSOCIATION NEWS

PRE-CRISIS SURGERY PREVENTS SOME HEART FAILURE

The difference between life and death in a certain heart disease can depend on less than a thimbleful of blood a minute, which now can be supplied by the heart itself with the help of surgery.

Two Cleveland physicians said the "re-vascularization" operations can be performed on selected patients with coronary artery disease.

Drs. Claude S. Beck and David S. Leightninger, Western Reserve University School of Medicine, said a "small beginning" for prevention of degeneration of the arteries has been made in the experimental laboratory. In the meantime, some lives can be prolonged in spite of defects. Operations for accomplishing this help the heart to recover after clotting in a major artery, which without surgery usually causes heart failure.

The physicians, who began their work in the revascularization approach to heart disease in 1932, performed 4,000 to 5,000 experimental operations on animals and later 186 operations on patients. A follow-up study of 25 patients showed mortality rates were improved and four out of every five patients who survived had complete or marked reduction of pain. They also were better able to work afterwards.

The physicians explained that in occlusive disease (when arteries develop plugging which cuts off blood supply to heart areas) heart failure death is either mechanical or muscular. In muscular failure, the blood supply shortage causes damage to the heart muscle. In mechanical failure, however, the heart would be capable of functioning but fails because impaired circulation to the conducting mechanism interrupts the co-ordinated heartbeat.

It is the mechanical type of heart failure which strikes "a vast segment of our population" and which can be surgically prevented, they said. Although surgery cannot actually stop the occlusive process, it can provide the small quantity of blood which protects the coordinating mechanism and saves life.

The physicians said they found less than a thimbleful of blood a minute could be suf-

ficient for protection. Improved circulation for providing this amount could be achieved either by adding blood from outside sources or by improved distribution of blood in short supply. They developed two operations for achieving improved circulation. In one, the heart is stimulated by an irritating agent such as powdered asbestos, and tissue and fat are grafted to the heart surface. In the other operation a vein graft is connected to a channel leading into the heart and the channel is later pinched in to raise pressure.

The techniques are actually ways of helping the heart in its own attempts at defense against occlusive disease. Diseased hearts ordinarily try to develop additional circulation themselves, but sometimes this development is slower than the progression of the disease. An operation performed before the disease reaches a crisis helps insure the auxiliary blood supply.

For this reason, the operations can be done only on those patients whose vessels have become plugged (and defenses are developing) but in whom an occlusion crisis has not occurred.

Best suited for the operation are lean persons in their 40s or 50s who have had the disease for a year or so, have pain, but are still able to get around. Patients with heart failure from degenerated heart muscle are not acceptable for operation.

The physicians said that in some patients, the disease may continue to progress—but the patient lives. Although he may be "worse clinically after operation . . . the operation saved his life."

In animal experiments performed before the operations were tried on patients, the doctors first performed the protecting surgery, then artificially produced a crisis. Most of the animals so treated were saved by the operation. As many as 70 per cent of unprotected dogs died.

An editorial accompanying the report, which appeared in the November 27 Journal of the American Medical Association, commended the experimental work and its results. It said that "it is demonstrated beyond reasonable doubt" that additional blood can be supplied with surgical aid and that mortality can be reduced. It said the

results, which are "promising" show that "the protections established in the experimental laboratory, where variables can be controlled, are being transferred to the human patient in an orderly and acceptable manner."

It said until prevention of occlusive disease is developed, this surgical method "seems to be a proved way of modifying its devastating effects. . . ."

KOREAN MEDICAL RECONSTRUCTION IS "BIGGEST BARGAIN"

Korea is "the world's greatest bargain for investments in humanitarian projects," a medical consultant to the United Nations secretariat said recently.

Dr. Howard A. Rusk, New York University College of Medicine, said that Korea has "an extremely difficult problem" but is doing a big job with very little money.

Through emergency help, the United Nations Korean Civil Assistance Command and its Korean counterparts have "achieved one of the world's truly remarkable results in the control of epidemic diseases . . . in an unbelievably short time."

But Dr. Rusk said the rest of the situation in Korea could be understood by picturing any American city of 25,000 with one fourth of the homes destroyed and another fourth unroofed or damaged, sewers destroyed, 1,250 persons with tuberculosis, almost every one chronically undernourished, scores blind or with leprosy—and only one poorly trained doctor.

The primary need is for trained personnel. Only 3,500 of the 6,800 medical practitioners have medical school training, and nearly half of the country's 5,000 doctors of medicine are in the army, leaving 2,500 to care for more than 20 million persons.

With about \$600,000 of voluntary contributions, the American-Korean Foundation has started the first school of public health in Korea, reestablished nursing schools, and set up short courses in tuberculosis control, midwifery, and nursing. A rehabilitation center for the physically handicapped and national programs for tuberculosis and leprosy control have been started.

This can be done only because of the tremendous buying power of a dollar in Korea, he said. A student can attend medical school for four years for \$1200. For \$20 apiece, 2,000 American physicians bought goods for two suits and a raincoat each for the same number of Korean doctors.

Other voluntary contributions have been made: 70,000 textbooks have been contributed by American book publishers in answer to an appeal in the Journal of the American Medical Association, and the drug industry has sent more than \$2,250,000 in drugs and medicines through the American-Korean Foundation. One carload worth \$300,000 was sent by one company. A surgical appliance company contributed an entire carload of brace parts valued at \$60,000.

Dr. Rusk said in the November Today's Health magazine, published by the A. M. A., that it is "not surprising" that health professions have responded enthusiastically.

"We in America have always been proud of the spirit of voluntary service shown by members of the health professions," he said. "We have untold confidence in our men and women in white, for they have long symbolized mercy and compassion. Today our health professions, by their voluntary aid to Korea, are once more demonstrating that this confidence is well merited."

RAPID DECOMPRESSION CAUSES NO LAST- ING INJURIES

Studies of Air Force experiment volunteers show that repeated exposure to rapid decompression at high altitudes apparently causes no long-term damage to the lungs.

Two former Air Force physicians said the studies indicate latent ill effects on health probably are not a hazard in commercial jet-powered passenger planes. However, they said "certain protective measures" should be taken in these jets in case of sudden loss of cabin pressure at very high altitudes. This sudden loss can cause acute injuries.

Drs. William W. Pryor, Durham, N. C., and Gerald Marks, Philadelphia, reported in the November 27 Journal of the American Medical Association on their work while at the Aero Medical Laboratory, Wright Air Development Center, Ohio.

The men they studied had been subjected repeatedly to rapid and explosive decompression, comparable to being raised from ground level to a height of one and one-half to two miles in less than three seconds. Some of the subjects underwent changes comparable to being raised to about three miles in less than one second.

They said that tests had been made on immediate injury—such as bends—but that no investigations had been made of possible injuries that might show up later.

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RESEARCH IN ARTHRITIS

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It is interesting to note that, although great strides have been made in research as to the etiology and management of many other acute and chronic diseases, it has only been of recent date that any energy and interest have been directed to the rheumatic diseases.

A survey in 1949 by the National Research Council revealed that hardly more than \$300,000 was being spent annually in the United States for research in chronic rheumatic diseases, although the yearly cost of the medical care alone for such patients had exceeded \$100,000,000. In recognition of this serious state of affairs and the growing concern of an informed public, Congress, in 1950, established the Institute of Arthritis and Metabolic Diseases. An extensive program in research, professional education in arthritis, and metabolic diseases is thereby assured by this Act.

The introduction of ACTH and cortisone for the treatment of rheumatoid arthritis offered us not only a promising therapeutic agent to combat these disease states but a valuable research tool as well. The remarkable clinical effectiveness of these agents in many of the rheumatic diseases promptly led to attempts to link their pathogenesis to the function of an endocrine gland, especially that of the adrenal cortex. It soon became apparent, however, that these hormones were not specific for this disease, but merely influenced favorably the inflammatory course of a host of maladies, among which were the rheumatic diseases.

For the benefit of clarity it might be wise for us to include in our discussion a brief description of adrenal glandular function. The anterior pituitary hormone (corticotropin or ACTH) controls the release of hormones from the adrenal cortex. This mechanism is of a highly complicated and sensitive self-regulating nature and endows the higher organisms with a relative freedom from a constantly changing environment. A most striking feature of the pituitary-adrenal cortical system is its ability to endow the individual with a resistance, not to a few, but to all types of stress. The higher centers in the brain, especially those of the hypothalamus, probably regulate, at least in part, the release of the ACTH. In addition to the automatic release of ACTH, its output is also adjusted by a metabolic mechanism whereby low levels of circulating adrenal steroids stimulate and high levels inhibit hormonal release. Such decreased levels of circulating steroids have been assumed to be either from a result of a decreased production of the hormone by the adrenal cortex or its increased utilization in the peripheral tissue.

The exact nature of the adrenal cortex as to its hormone secretory activities is still unknown. However, three general types of steroids are elaborated from the adrenal cortex under the influence of ACTH: those of electrolyte regulating effect, those regulating the utilization of organic substances, such as carbohydrate, protein and fat, and those eliciting androgenic and anabolic effects. Of the second type, we are most interested in cortisone and compound F. These corticoids may exert a relatively weak electrolyte regulating effect, but most

Read before the Association in annual session, Mobile, April 16, 1954, being a part of a panel on arthritis.

of their action is in the utilization of carbohydrate, protein and fat. It is now known also that a portion of the androgenic effects observed during cortisone administration may have their origin in the degradation of the gluco-steroids. This may explain the hirsutism commonly noted in females treated with these drugs. There is currently a wide acceptance of the evidence that compound F is the chief steroid released by the adrenal cortex under the influence of ACTH. Experiments with the isolated adrenal glands indicate that the chief corticoids produced may be compound F.

In this discussion it should be emphasized that the present viewpoint, that rheumatoid arthritis and rheumatic diseases result from insufficient adrenocortical hormone, is still not founded on experimental evidence. One would expect some confirmation of a decreased activity in the urinary excretion patterns of the cortical hormone degradation products, i. e., 17-ketosteroids and 17-oxysteroids. To date there are conflicting reports as to these findings in patients with rheumatoid arthritis.

Some investigators feel that they have been able to demonstrate evidence of decreased activity of the adrenal corticoids in rheumatoid arthritis, but factors such as age, sex, physical activity, or the nonspecific effect of the underlying chronic illness may influence corticoid steroid levels. Certainly more investigative work appears indicated to elucidate this important factor. Likewise, there does not appear to be any deviation from the normal as to the effect of ACTH on the eosinophil count in patients with rheumatoid arthritis. In fact, the eosinophil count may be found to be actually decreased in some rheumatoid arthritic patients as compared to that observed in normal individuals.

It has been postulated that as a result of the so-called "stress phenomenon" the peripheral tissue requirement of cortisone-like corticoids is increased. In this theory, though the normal pattern of cortisone metabolism is present in rheumatoid arthritics, the excess body needs precipitate a relative deficiency of cortical hormone material. As yet no evidence has been introduced to support this view.

Just whether the rheumatic diseases, such as rheumatoid arthritis, are diseases of

adaptation is still a matter of debate. We must remember that Selye has described only a pattern of alteration which may occur upon exposure of an animal to stress. He divides this syndrome into three stages: the alarm reaction, the stage of resistance, and the stage of exhaustion. The last two stages bear evidence that certain hormones of the anterior pituitary and adrenal cortex are produced in large amounts in order to increase adaptation to stress. The resulting cortical hormone overdosage may evoke certain cardiovascular and joint alterations. Thus, there has developed the concept that the most common diseases of man are diseases of adaptation, which are the byproducts of a normal adaptation to stress.

Experimental arthritis and cardiovascular diseases have been produced in rats by overdosage of DOCA. Such changes were prevented by the simultaneous administration of cortisone. Of all the lesions reportedly produced by such a regimen, arthritis has been found in only a small percentage of the experimental animals. When it did occur, the disease was usually of temporary nature and no evidence of rheumatoid arthritis could be demonstrated on histologic examination of the joint tissue. Certainly, at the present time we cannot assume that the stress phenomenon is the entire answer to our overall pattern of rheumatic diseases. Therefore, it seems justifiable to consider the observations of Selye as another example of cortisone suppression and of DOCA aggravation of the inflammatory reaction in a nonspecific manner without implications as to the pathogenesis of joint disease. It should be pointed out that the discovery of the widespread clinical effect of ACTH and cortisone in rheumatic diseases was made quite independently of Selye's hypothesis.

It was soon recognized by investigators that overproduction of individual adrenal steroids could not produce the joint changes of rheumatoid arthritis. There was next advanced a theory that these diseases were possibly due to an imbalance of individual adrenal corticoid secretion. In such a hypothesis the excess production of one or more of the corticoids might obviate their mutual inhibitory effect. Clinically, however, this was promptly refuted inasmuch as there is no evidence that there is any increased electrolyte hormone activity in rheumatic diseases. Such would be the case if the DOCA-like steroid was produced in

any excess degree.

There can be little question that Selye has developed a unifying concept of a fundamental biologic mechanism in his description of the alarm reaction, i.e., in the general adaptations involved. However, it will require many years to determine to what extent any of these concepts are concerned in the pathogenesis of any disease, especially in one that is as elusive as that of rheumatoid arthritis. Selye, himself, does not regard his hypothesis as an established fact but as a preliminary working thesis. Although it is largely incomplete and partly inaccurate, such a theory was most urgently needed for those eager to delve into the mysteries of this disease. However, the etiology of rheumatoid arthritis, which has heretofore been shrouded in total darkness, now, at last, is dimly lit.

The exact mechanism of action of ACTH and cortisone in the rheumatoid picture still remains unknown. Many investigators agree with Hench who has postulated that these drugs provide a shield-like buffer against the irritant, known or unknown, in these disease states. With this theory in mind, one might say that if protection were fully provided until the end of the natural duration of the infection the patient would come out of this ordeal unscratched. Other investigators feel that the connective tissue in patients with rheumatic diseases is relatively insensitive to the controlling effect on the adrenal steroids therefore requiring larger amounts for normal function than cells in the non-rheumatic body.

Pertinent to a discussion of research in rheumatic disease is the ability to produce arthritis in experimental animals. Again, much interest is centered on the arthritis that has been produced in rats by injection of the pleuropneumonia-like organisms. Trippi and his associates have extensively studied arthritis produced by such bacteria and the influence of various drugs and other factors on this disease process. Gold salts were found to prevent the production of the histologic picture of rheumatoid arthritis. Corticotropin administration increased the severity, and the process was not influenced by cortisone. Aureomycin and Terramycin treatment prevented the development of the arthritis. The pleuropneumonia-like organisms strangely enough possess a predilection for joint structures.

It certainly should be emphasized, however, that the effectiveness of various agents in the prevention and treatment of experimental arthritis cannot be translated to the treatment of clinical arthritis at this time. Unfortunately, this has been repeatedly assumed by many clinicians.

Of interest to the researcher is the production of arthritis in rabbits after injection of a strain of enterococci isolated from the stools of patients with arthritis. Excessive use of the joints before the inoculation increased the severity of the process and the relative number of joints involved. The peripheral blood streptolysin titer in these animals was found elevated after the production of the arthritic process.

Repeated intra-articular injection of typhoid vaccine has been observed to produce both an acute and chronic arthritis with synovial hypertrophy, focal accumulation of lymphocytes, and destruction of the cartilage. Similar histologic changes have been observed in patients with arthritis. Likewise, the Swartzman phenomenon has been produced by injecting typhoid antigen into the joint after previous sensitization of the animal by subcutaneous injection. Arthritic and vascular histologic lesions were produced.

Arthritic diseases have been observed in swine. Postmortem examination of these animals has revealed lesions similar to those of rheumatic fever and rheumatoid arthritis. ACTH and cortisone produce a definite but temporary improvement in this disease process. Joint disease in lambs similar to that of rheumatoid arthritis has been produced by injection of a serum contaminated with *Erysipelothrix rhusiopathiae*.

Some of the newer work concerning the rheumatic diseases has dealt with the ground substance or the jelly-like material that holds the body cells together. Changes in this substance may be an important factor in the production of the bizarre and multiplicity of symptoms seen in these diseases. It has been suggested that a mere chemical alteration in the structure of this ground substance may in reality be the missing link in the pathogenesis of these disease states.

Working at the Medical College of Alabama, we have determined several factors concerning this substance. Using the joint fluid as an index of the ground substance we have found it markedly altered chem-

ically during attacks of rheumatic diseases. This cellular supporting substance is apparently made up of body sugars of complex nature, and, when combined with the proteins, are called "mucins." They are present in a number of secretions of the body, such as the sputum, the stomach contents, and the genito-urinary systems. This so-called ground substance may be altered by toxins, irritants, or enzyme systems that may be abnormally present in the body. Though the material loses its ability to maintain proper nutrition of the cells it may not alter the structure of the involved organ. As a result the cell may become damaged or actually die.

It has been determined that this altered ground substance may react to cold and heat in a way that might explain some of the varied symptomatology that we note in rheumatic diseases. It may become stiff and unpliant on exposure to cold. This may explain one of the most frequent subjective symptoms noted in arthritics, that of stiffness. We know that motion and massage may result in increased temperatures in the joint and in the surrounding tissues. Arthritics frequently express relief after massage and motion of the joint. Increased heat with resultant decreased viscosity of the ground substance might explain the disappearance of the symptoms of stiffness. One of the most common effective local treatments in arthritis is heat, which relieves the pain and stiffness in these affected joints.

Just what causes the alterations in the chemical structure of the ground substance we are not exactly certain, but a great many enzyme systems occurring normally or abnormally within the body will alter the chemical structure of the mucins. One of these is so-called "hyaluronidase," better known as "the spreading factor." Such an enzyme is elaborated by the streptococcus organism and possibly other types of bacteria.

Symptomatic improvement seen in these diseases after cortisone and hydrocortisone therapy may be explained by the fact that these agents are powerful hyaluronidase inhibitors, preventing any alteration in the chemical composition of the ground substance. Local injection of hydrocortisone (compound F) often affords relief in arthritic joints. The excess joint fluid dis-

appears and evidence of inflammation subsides.

As a manifestation of the action of the hydrocortisone in an involved joint, changes in the synovial fluid are quite striking. In rheumatic joints the fluid may be cloudy, thin, and of low pH, with markedly increased quantity. After the injection of only a small amount of this powerful hyaluronidase inhibitor, there is a decrease in the amount of joint fluid, increase in the viscosity, increase in the pH, and disappearance of the cellular reaction in the fluid. Electrophoretic patterns in these fluids return to those of the normal.

To date we have nothing concrete to offer in the way of an explanation of the pathogenesis of these complex diseases, but there is a ray of hope, be it ever so dim. From such research there may be new means discovered for alleviating the distressing condition or even its prevention.

The Doctor and the Public—The relationships existing between the doctor and the public are numerous and multifaceted. They are important to both the doctor and the public. In a presentation of this type, it is impossible to cover all of these relationships or even to discuss some of them as thoroughly as they should be discussed. However, I would like to present to you rather briefly some of the more important of these relationships. The problems in human relationships created by the interaction of the medical profession and the public deserve more attention than most of us have been willing to give to them.

There would be no problem, and none of us would have to give any attention to it, if you and I and every human being lived lives isolated from contact with others. But we do not. In the course of our lives, we come in contact with many thousands of other people, and perhaps with many hundreds of groups of people. Each time a contact occurs, a relationship is established or reestablished: good, bad or indifferent, but a relationship, a human relationship.

These relationships exist for each of us and they exist between groups of people just as between individuals. If we accept the fact of these relationships and if we make the most of the opportunity they present, then we as groups and we as individuals can work together and live together much more happily and much more effectively.—McMahon, *South. M. J.*, Dec. '54.

ANNUAL SESSION
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MONTGOMERY
APRIL 21, 22, 23

A PRESENT DAY VIEW OF BLADDER TUMORS

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Bladder tumors present no symptoms or signs that are pathognomonic. Hematuria is the most frequent and most important clinical indication, and Geraghty's figure of its being the initial symptom in over 77 per cent of the cases has risen to as high as 97 per cent in the light of present day statistics. Whether this hematuria is gross and total, or scant and terminal, the cause of the blood must be found out as soon as possible. In 1945 Milner reviewed 245 cases and found that, even though hematuria was the presenting symptom in over 94 per cent of the cases, twelve months and fifteen days was the average elapsed time before the patient finally presented for diagnosis and treatment. No method which palliates should be tolerated, as the bleeding point is more easily located cystoscopically while it is bleeding, and the tumor diagnosis should be made as early as possible, for it is the early diagnosed cases which are cured and remain cured.

In the early days of cystoscopy the lens and the lighting systems were poorly developed, when compared to the present day instruments, and the cystoscopist was looking at what might be called a mirage, and there was no one with sufficient knowledge of the true condition to dispute his diagnosis, or point the way to a more accurate opinion. Careful noting of the symptoms and urinary examinations, supplemented with bimanual palpation of the bladder region, was the only other means except open surgery to diagnose a tumor of the bladder.

Cystoscopic interpretation is the most important point in diagnosis, and experience will train one to judge fairly accurately the line of demarcation between the extension of the neoplastic pathology and normal bladder tissue cystoscopically. Certainly the chance of error to do this differentiating bimanually in any case is far greater than by cystoscopic observation or direct visualization through open surgery.

The most skillful cystoscopist cannot always tell just how far the tumor has invaded into the bladder wall. This also holds true in an open operation with segmental resection, so, regardless of one's experience, the fact is that invasion of the vesical wall

by carcinoma may occur without visible evidence on the mucosal surface of the bladder. Jewett states that the prospect for cure is best determined by ascertaining the depth to which the tumor has invaded the bladder wall, and that this can be done with a high degree of accuracy by means of the bimanual pelvic examination if one has had sufficient practice. In my cases where the tumor is small this bimanual examination fails to reveal anything, which is concrete evidence that I am dealing with bladder invasion or tumor, or, if cellulitis has developed intra- or extravesically, there is too much resistance for me to evaluate the demarcation point or edge. We do not practice bimanual pelvic examination postoperatively for fear of pushing cancer cells into the perivascular areas or lymphatics of the bladder wall, thereby adding to the incidence of metastatic invasion.

We believe excretory urograms should be made in every case of bladder tumor in order to rule out possible primary malignancy in the upper urinary tract, as well as to establish the presence or absence of obstruction in one or both ureters as a result of the tumor either by infiltration or pressure. Ureteral occlusion or dilatation is often silent, and knowledge of their presence is important in our treatment. Ash observed that the location in more than two-thirds of 2,700 cases of bladder tumors was on the posterior wall near the trigone, and that tumors on the anterior portion of the bladder wall were uncommon. Young and Scott had formed this same opinion previously in a much smaller series.

Infiltrating tumors may be present without any intravesical projection, and the mucous membrane may present a perfectly normal cystoscopical appearance, making early recognition very difficult. In such cases, and those where edema and necrosis have set in, a biopsy will add to our knowledge of the existing pathology. A period of bladder treatments, such as bladder irrigation, catheter drainage or fulguration, may best precede the biopsy when necrosis is present.

The early German pathologists were of the opinion that organs frequently involved

by primary neoplasms seldom became the seat of metastasis. In bladder tumors, most are primary. The few secondary tumors which have been encountered, according to Huggins, have been leukemic infiltration endometriosis, and direct involvement by extension of cancer of the bowel and uterus.

The simpler our classification of these tumors the better. Some of the tumors change their pathological picture as they progress, but not their classification, this being for the most part a pathological procedure. From a clinical point of view bladder tumors fall into either papillary tumors or solid neoplasms. Jewett and Blackmon have demonstrated that these groups merge imperceptibly, and though all bladder tumors are potentially malignant, as pointed out by Kretchmer, Graves, Hinman, Rokitansky and Ockerblad, in general a papillary lesion is less malignant than a solid cancer. Ash, Beer, Buerger and others believe that there exists an essentially benign type of papilloma of the bladder. Thus we see the proper interpretation of a bladder tumor biopsy is contingent upon the coordination of urologist, technician and pathologist, if the controversy which is now present is to lead to a true evaluation.

Priestley states that the best chance to eradicate cancer anywhere in the body is the first chance. This must be borne in mind in deciding whether a transurethral or suprapubic approach is preferable in a given patient. The greater number fall into the transurethral approach by their location, as well as being visible cystoscopically. More fall into this category as we are trained in early diagnosis of these cases, and operators become more adept in transurethral manipulation necessary in the eradication of the tumor.

Transurethral resection and electrocoagulation are best used for lesions limited to the bladder. Those located anteriorly at the bladder neck, in the fundus, or deeply invading the prostate gland have proved inaccessible to this type of surgery in my hands. Fortunately these form only a small percentage of bladder tumors.

In the transurethral or conservative approach good results are obtained without manipulation, thus avoiding the danger of squeezing tumor cells into the lymphatics and spreading the tumor. The heat produced in this procedure spreads into the

lymphatics for some distance beyond the limits of coagulation, serving to destroy tumor cells which may already be on their way to metastasizing. No spillage of cells outside the bladder is encountered by the transurethral approach, which carries a low mortality and morbidity rate with practically no change in bladder function. Regular periods of reexamination should be carried out. It has been the custom of Hinman, Howard and others to have the patient return a month after treatment and then to destroy any recurrence. If there has been no recurrence the patient should return in two months, then three months, and every three months thereafter for a period of two years when the interval can be stretched to every six months for the next three years.

The bladder is not too distended but enough distention for good visualization of the tumor neck or base as the case may be. The current is stepped down to the point where the loop engages smoothly. This prevents the violent contractions encountered in some cases.

We use the resectoscope to remove the tumor tissue, cutting well into the muscularis at its base. Care is taken in selecting the proper specimen for microscopic study so that the pathological report will give a good idea of the penetration of the tumor into the muscularis. The resected base is lightly fulgurated and all bleeding points are controlled. Radon seed of 1.35 millicuries are then implanted in such a diagram as to radiate 0.5 to 1.0 cm. of the normal margin. This will destroy any small group of cells which may have invaded the perivascular area or lymphatics.

Catheter drainage is employed postoperatively for from two to four days, the catheter being connected to the drainage tube in such a manner as to keep the bladder partially filled. This prevents radiation of the opposite bladder wall and serves to allay the discomfort from radiation of normal tissue.

The patient is allowed regular diet, and water is forced. His urine is kept alkaline and we prefer sulfadiazine, grains $7\frac{1}{2}$, four times daily, for the urinary antiseptic.

The patient is far more comfortable with a functioning bladder and this can best be accomplished transurethrally in a very large percentage of cases. We still see an occasional case where it might be easier to

open the bladder and resect, fulgurate, and implant radon through a suprapubic wound under direct vision, but morbidity is greater by so doing. We must completely individualize the patient suffering with bladder tumor if we are to obtain the best results for each individual. The thoroughness with which this individualizing is accomplished, rather than some pet theory of the operator being read into the case with pink glasses, is what we must strive for. Scientifically we want to know the cellular construction and type of tumor, but this knowledge usually comes after and not before our therapeutic approach to the problem, and this is as it should be. It is our duty to the patient to take our first chance at therapy as early as possible, and to make such telling blows that our follow-up inspections will in their turn lower the patient's anxiety.

We will grant that an occasional case fairs well with total cystectomy and diversion of the urinary stream, but the overall picture of this condition, as we have seen it, is that the survival rate is low and those that do survive are pretty miserable for the short life they have postoperatively.

CONCLUSIONS

The greatest factor in our treatment of bladder tumors is early diagnosis, and it is folly to give any medication which will postpone cystoscopic examination for even a day when hematuria is present, as the patient senses a false security when the hematuria ceases to be macroscopic. The conservative approach will find more patients treated by more men earlier, thus lessening mortality and morbidity, and giving the patient less dysuria.

303-304-305-306 Van Antwerp Building.

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Doctor and Hospital—Another problem which confronts the doctor today is the want of good nursing care for his patients. The time is ripe for the nursing profession to return to the bedside. In my experience twenty-five years ago the care of the sick was nursing's primary objective. At about that time nursing took off and soared into the field of higher education. In some instances the regular training school was abolished. I think that it was the original intent to have a better nurse at the bedside as the result of better preparation, and if this idea had been carried out we would be better off. One would think that the more higher education a person had the more understanding, the more practical, the more efficient, the more human that person would become, but, unfortunately, one finds all too frequently an academic aloofness and conceit, lack of practical understanding, and a departure from nursing's primary objective—the intelligent and sympathetic care of sick people. Actually these girls have gone into hospital administration, public health, and special forms of nursing with the result that instead of the trained nurse at the bedside we find substitute groups such as attendants, aides, and practical nurses. They are more and more being given the responsibilities of the trained nurse, but have not had the preparation given the product of our nursing schools.

Nurses have taken flight from the bedside because of opportunities in industry, the armed services, and business establishments, attracted by easier work, shorter hours, and higher wages. In my experience they are frequently wasted in these positions, doing work that could be well done by a medical secretary with a little knowledge of first aid.

A short time ago I attended a meeting on nursing when eight different categories of people were presented as illustrative of the different groups in nursing or cooperating in nursing today. Three of these programs were sound, the remainder obviously inadequate for good bedside care. At about the same time one of our nationally known figures in public health told me that he thought the attendant and allied groups were the answer to bedside nursing. To me nothing could be more tragic.

At the present time it is hoped that the nursing profession will clarify the objectives of nursing education. There are a number of different fields which require distinct types of preparation and the educational program should be planned to adequately cover these needs.—Roberts, *Connecticut M. J.*, Dec. '54.

B. C. G. AS A PUBLIC HEALTH MEASURE IN JEFFERSON COUNTY, ALABAMA

RUTH BERREY, M. D.
Birmingham, Alabama

B. C. G., a vaccine made from avirulent bovine tubercle bacilli, has been shown to be harmless and to produce a significant degree of protection against tuberculous infection.¹⁻⁴ Since it has been recommended for use in certain groups by the National Tuberculosis Association, the Trudeau Society, and the American Public Health Association,⁵ it was thought advisable to include it in the preventive program of Jefferson County.

In 1950, when the B. C. G. program was begun here, there were 262 deaths from tuberculosis in Jefferson County and the rate was four times as high among Negroes as whites. The death rate from tuberculosis in Alabama has fallen steadily since 1900 but the number of known cases has risen from approximately 6,000 ten years ago to 12,000 now. More new cases were reported in 1953 than in 1952. This large case load is due, in some measure, to better case finding and to longer life of the patients. Nevertheless, these people are present as sources of infection.

Since the death rate of infants infected under one year of age is estimated at 35 to 50 per cent and most cases of miliary tuberculosis and tuberculous meningitis occur in the early age groups,⁶ it was decided to vaccinate the newborns at Hillman Hospital, especially the Negro newborns.

The public health nurses tell the mothers in the prenatal clinics about B. C. G., then the mother has a chest x-ray made and is questioned about tuberculosis in the family. When the baby is born, if the mother signs

a permit, the baby is vaccinated by the pediatrics resident. If there is a case of tuberculosis in the home, the baby is given B. C. G., then is boarded by the Children's Aid until he is six weeks old and has developed a positive reaction to tuberculin.

Other groups in which exposure is sure to occur, and in which morbidity from tuberculosis is high, are nurses, medical students and laboratory workers.^{7,8,9} In Alabama where student nurses serve several weeks in tuberculosis sanatoria, an effort is being made to vaccinate all the tuberculin-negative nurses in the first months of training before they go on the wards.

During the last year, B. C. G. has been given to children in the well baby clinics. They are tested first with 1:1000 O. T. and if negative they are vaccinated.

Method: The Rosenthal multiple puncture method is used. A drop of resuspended dried vaccine is placed on the arm and 36 punctures are made with the Rosenthal disc (this can be done with a smallpox vaccination needle). After about two weeks a tiny tubercle forms at the site of each puncture, giving the appearance of "goose flesh." There is no ulceration, suppuration or scarring.

Follow-up is done in the well baby clinics where a 1:100 O. T. test is done at three months and is repeated at yearly intervals.

Results: In the 4696 newborns who have been vaccinated since February 1950, there have been no reported deaths from tuberculosis and no clinical cases. A B. C. G. file is kept in the County Health Department and the deaths and cases reported are checked against this file.

There has been some evidence of protection afforded as in the case of a Negro fam-

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ily where the mother came out of the sanatorium just before her first child was born in June 1950. This baby received B. C. G. and has remained clinically well, although he has a strongly positive reaction to 1:1000 O. T., indicating that he has been infected with human tuberculosis. The next baby, born in June 1951, was not given B. C. G., although the mother had requested it. The baby was kept out of the home for three months, then the mother took over his care. At one year of age he was admitted to the hospital with advanced tuberculous meningitis. After eight months of treatment he died.

Two of the nurses who refused B. C. G. developed tuberculosis and spent several months in a sanatorium. One of these girls

had a baby recently and requested that he be given B. C. G.

There has been no resistance to vaccinations on the part of parents. There has been increased interest in case finding and follow-up of cases of tuberculosis by all the personnel concerned with the B. C. G. program.

SUMMARY

Between February 1950 and July 1954, the Jefferson County Health Department, with the aid of the Pediatrics Department of the Medical College of Alabama, has given B. C. G. to 4696 newborns, to 200 medical and nursing students, and to 375 older children. There have been no reported deaths from tuberculosis nor any clinical cases among those vaccinated.

2211 Highland Avenue.

LEIOMYOSARCOMA OF THE STOMACH

A CASE REPORT

B. F. THOMAS, SR., M. D.

and

B. F. THOMAS, JR., M. D.

Auburn, Alabama

This case of leiomyosarcoma of the stomach is being reported because of the relative rarity of the condition. In the February 1954 number of *Surgery, Gynecology and Obstetrics* the Mayo Clinic reported 40 cases that had been found in the period 1907 to 1950. Out of these, some interesting data may be obtained. The cardinal symptoms noted were abdominal distress, gastro-intestinal hemorrhage, and presence of an abdominal mass. The most characteristic physical finding was an abdominal mass on palpation. Evidence of chronic blood loss was noted. The typical microscopic picture of these tumors is that of smooth muscle with increased cellularity, pleomorphism, and the presence of mitotic figures. Gastric leiomyosarcomas spread principally by way of the blood stream and invade the liver primarily. Treatment of choice is surgical removal, even in the presence of metastasis. One patient lived 6 years despite metastasis to the liver. Five-year survival rate among 26 patients was 53.8%. Only 135 cases of leiomyosarcoma of the stomach have been in the literature since the first case was reported by Morgagni in the year 1762.

The patient was a 73 year old former housewife who is now living with her

daughter. She has had five children. Family history shows that one daughter died of carcinoma of the breast at a fairly early age. One son died with a ruptured appendix. There is apparently one case of tuberculosis in the family. Past history revealed that there had been intermittent attacks of abdominal pain for the past two years. A diagnostic D & C which was done in Montgomery several years ago was negative. A mass was felt one and a half years ago in the upper right quadrant. This mass disappeared and was not felt again on re-examination. Chief complaints of the present illness were nausea and vomiting, and pain in the upper right quadrant of the abdomen. The onset was two weeks prior when the patient was first seen with an upper respiratory infection by B. F. Thomas, Sr. She was placed on Terramycin and showed no improvement. On December 8, 1953 severe nausea and vomiting, with abdominal pain, developed and an abdominal mass was palpated before admission to the hospital. The patient was admitted to the Lee County Hospital for diagnosis and treatment.

The physical examination was as follows: weight 108 pounds, blood pressure 120/80,

skin, pale with light yellow tinge; head, negative; neck, non-rigid; heart and lungs normal. There was marked dehydration present. Skin folds when picked up remained up. A hard mass, 5 centimeters in diameter and slightly movable, was palpable in the upper mid-epigastrium. The liver edge was 3 centimeters below the costal margin. Rectal examination was negative. A speculum and pelvic examination was not done at this time.

The laboratory work on admission showed the following findings: red blood count 1,820,000, hemoglobin 25%, white blood count 9600, eosinophils 1%, segmented neutrophils 89%, lymphocytes 10%. The red blood cells were normocytic and slightly hypochromic. The patient was type "A" Rh positive. The Kahn was negative. A complete hematocrit showed the following: packed cell volume 18, color index 0.72, volume index 1, mean corpuscular volume 98, mean corpuscular hemoglobin 23.3, and mean corpuscular hemoglobin concentration 23%. Icterus index was 3.1. Urinalysis was essentially negative. Occult blood stool was 4 plus. The patient was given 4 transfusions of blood following admission to the hospital. The hemoglobin was elevated to 48%.

The patient continued to have occult bleeding and the following operative procedure was done on the 14th of December 1953. A para-umbilical incision was made just lateral to the umbilicus, superior portion of the abdomen extending from the xyphoid process down to a point just inferior to the umbilicus. Subcutaneous tissue was opened and rectus fascia was exposed and opened. The rectus muscle was retracted laterally. The peritoneum was opened. The stomach was found lying fairly low, with a mass about 5 centimeters in diameter in the prepyloric region on the greater curvature side of the stomach. This mass was hard in a few areas but was soft in other areas. It felt as if it were fungating. The liver was examined and found to be normal. There were a few enlarged lymph nodes in the lesser omentum toward the diaphragm. These were thought to be possibly metastatic involvement of lymph glands. The gallbladder was examined and found to be normal. The duodenum was normal. The large bowel was found normal.

A subtotal gastrectomy was then done.

Dissection was begun along the greater curvature of the stomach clamping the short epiploic vessels, ligating each one separately with plain ties of 000 silk. A fairly high dissection of this region was done up to within 5 centimeters of the upper border of the stomach. The stomach was then dissected down to the pylorus. The gastroduodenal artery was ligated, then an umbilical tape was placed around the stomach posteriorly in through the lesser omentum for retraction. The lesser omentum and left gastric vessels were then clamped, cut and ligated. Ligation was done with 000 silk sutures on needles. This dissection was carried up high. A Harvey Stone clamp was placed across the duodenum, upper portion. An Ochsner clamp was placed on the stomach portion, and an incision with a sharp knife was made. The stomach was then cut free.

The duodenal stump was closed by four layers. The first layer was continuous 00 chromic catgut suture, overlapping fashion. The Stone clamp was removed and the suture was tightened. The second layer of serosal sutures continuous was made; this inverted the stump. A third layer of 000 silk interrupted was placed in the outer serosal layer of duodenum, further inverting the stump. The fourth layer was placed into the duodenum and omentum in such a manner that the omentum covered over the duodenal stump. A small portion of pancreas was brought down also with the stump. A Von Pets clamp was then placed across the base of the stomach and clamped. The stomach was cut across between metal clips. The lesser curvature border of the stomach was inverted, inverting the clamps into the inside of the stomach with suture of 00 chromic catgut continuous. Then a layer of interrupted 000 silk in the serosa was placed, further inverting the stomach. A distance of about 5 or 6 centimeters on the greater curvature side was left and not inverted.

The jejunum, having already been brought up, was sutured to the posterior layer of the stomach, greater curvature side. Clips in the stomach were cut out, leaving the stomach open. A layer of continuous 00 chromic catgut was used in the posterior region suturing mucosa and serosa together. This suture was then brought anteriorly using the in and out type of suture to close the anterior portion, closing the mucosa and serosa together. An interrupted layer of

000 silk was then placed in the anterior portion of anastomosis. The area was checked for bleeding and no bleeding was found. The peritoneum was closed with No. 1 chromic catgut suture and the remaining layers were closed with No. 1 chromic catgut interrupted sutures after putting 3 stainless steel wire retention sutures through all layers including the peritoneum. The skin was closed with skin clips. Retention sutures were tied over rubber tubing.

The pathological report as given by Dr. Warren B. Matthews, M. D., of Atlanta was as follows:

Gross:

This is a large portion of a stomach. It was taken out just at or above the pylorus. The greater curvature length in this specimen is 16.5 centimeters and that of the lesser curvature is 10.5 centimeters. The serosa is congested, but for the most part is smooth. In the middle portion, however, it is slightly rough, perhaps because of some loose fibrous adhesions. Palpation shows a bulky mass occupying the lower third of the inside of the specimen. The proximal end is 16 centimeters in circumference and the distal circumference is 4 centimeters. The specimen is opened along the greater curvature, the incision exposing the mass mentioned above. This is roughly nodular and protrudes into the lumen, almost occluding the lumen. Most of the mass is covered with gastric mucosa. Above the mass there is a rim of uninvolved stomach about 3 centimeters long, and below it the uninvolved portion is about 1.5 centimeters long. In the center of the mass, on the lesser curvature, there is a sort of excavation which is 3 x 2 x 1.5 centimeters. This contains mucus and even here the mucosa may cover the mass. The inner structure of this mass is more or less lobular. Surfaces made by cutting are greyish, solid, soft, friable and glistening. Gross inspection shows some ulceration of the mass from within.

In the mesentery there are slightly enlarged, fairly soft lymph glands.

Microscopic:

The histologic studies of the tumor show a rather peculiar neoplasm. This neoplasm is made of large spindle cells that grow side by side in an irregular, angled manner. The cytoplasm is small in quantity and indefinite in appearance. The nuclei are oval and vesicular. There are a number of them that

contain mitoses. The nuclei are more or less uniform except for areas of degeneration, where they are faded or even pyknotic. Occasionally one sees a cell with two or three nuclei. The vascularity of this tumor is moderate. In spite of the obvious malignancy, the tumor seems to have a fairly definite fibrous capsule.

Various parts of the gastric wall not involved by tumor are essentially normal. There is some ulceration over this tumor, and some areas are necrotic. The lymph nodes contain no tumor. This particular tumor is probably primary in smooth muscle and metastasizes almost altogether through the liver.

Diagnosis:

Spindle cell sarcoma of the stomach (probably leiomyosarcoma).

POSTOPERATIVE COURSE

The patient's immediate postoperative condition was good. There was no evidence of any distention or drainage on dressings at any time. Patient remained slightly dehydrated but the intravenous fluids were discontinued and on the 16th of December water was begun by mouth. (The gastric tube had been removed previously.) On the 21st of December the skin clips were removed and the incision was well healed. Retention sutures were left in place until the 14th postoperative day. On the 21st of December the patient developed pain in the upper right quadrant of the abdomen and the pain became severe on the 22nd of December. Temperature went to 101 degrees. Penicillin and streptomycin were discontinued, and aureomycin was begun intravenously. The lungs were also clear to percussion and auscultation at this time, but the pain was severe in the upper right quadrant with increased difficulty in respiration. The pain was more severe on breathing.

At this time the diagnosis of possible pulmonary embolus or embolic metastasis to the liver was made. The patient was put on anticoagulant therapy with depo-heparin and then changed to Tromexan orally. Daily prothrombin times were obtained. On the 23rd of December the condition was more serious. Pain was still present in the upper right quadrant. The scleras were jaundiced and the icterus index was 15. The skin was more dehydrated and she was given 500 cc. of 5% saline with 200 mg. aureomycin intravenously. The abdomen was not distended.

There was no evidence of any obstruction. On the 2nd of January the condition was improved and pain was practically gone. Temperature and pulse were down but diarrhea developed. Aureomycin was changed to Achromycin, 250 mg. orally every 6 hours, until 3 days prior to discharge. Examination of the chest showed dulness in the right lobe. X-ray of the chest revealed fluid and the diaphragm was obscured on the right side.

On the 28th of December thoracentesis was done in three separate places and only bloody fluid obtained. This fluid was examined by a pathologist and no tumor cells were found. On the 30th of December the patient's temperature and pulse were normal and she had no pain at all on respiration. On the 4th of January 1954 an x-ray of the chest showed some clearing of the fluid. A tentative diagnosis of pulmonary embolus was again made. The patient was improved enough to be discharged on the 8th of January. On discharge from the hospital the patient's weight was 110 pounds. She had gained a slight amount following the operation. She started off at around 108 pounds. On the 17th of December also jaundice was noted in the scleras. It was thought that this was due to swelling around the common duct at the entrance into the duodenum secondary to closure around this area because this jaundice cleared up completely by the 20th of December. On admission to the hospital this patient did not take anything by mouth except water. Since her discharge the patient has begun to eat anything. She is now up to 125 pounds in weight and is having no difficulty. There is no evidence of metastasis as yet.

Surgery for Malignant Disease—Optimism is urged for all surgeons performing definitive cancer surgery. Let each patient be an individual problem, not a statistic.

More frequent use of extensive surgical procedures for the treatment of cancer of the gastrointestinal tract and related organs is advised.

Reoperation in cases of cancer in which there are disabling symptoms or confirmed localized cancer is urged if distant spread of the disease cannot be proved. "Multiple looks" at asymptomatic intervals in patients with gastric and colonic malignant lesions with nodal metastases are discussed.

A study is reported in which analysis was made of 100 laparotomies and thoracotomies performed in adults for major disease of the gastrointestinal

tract. Of these, 56 were for cancer, and 5 of the cases are described in detail to illustrate favorable results in cases which would have been considered hopeless a few years ago.—*Day, J. Florida M. A., Dec. '54.*

The Doctor as Marriage Counselor—The physician who undertakes to interest himself seriously in the marital problems of his patients should have certain basic equipment if he is to do well. Foremost of desirable qualifications is a sufficient degree of personal emotional maturity to be able to identify one's self with the patient's troubled feelings and to accept their importance to him. This does not mean sentimentally "taking sides" with the patient as to all of his grievances. It means simply being able to show him a genuine, dignified interest in his unhappiness and a willingness to investigate it with such thoroughness that really constructive interpretation and suggestions can be formulated. The patient should at all times have the feeling that he is a free and active participant in whatever is worked out, rather than being the passive recipient of the doctor's wisdom. When advice is given, the ability of the patient to use it will depend largely upon the kind of feeling he has toward his advisor at that point. If it is a warm, strong feeling, the advice is likely to be helpful. If it is an indifferent or hostile feeling, even the soundest of advice will have little or no therapeutic value.

Clearly it is important to consider what technics may aid in the creation of a warm personal relationship. Outstanding among these is the ability of the doctor just to be an attentive listener. Even repetitive and seemingly irrelevant talk by the patient can reveal a great deal about his personality, if one will not brush it aside as boresome, and nothing will substitute for simple listening as the basic technic for generating warm feeling toward the doctor. This the specialized counselor knows well, and his time with the patient is planned accordingly. The busy doctor in routine medical work is likely to feel so pressed for time that good listening seems impossible or merely a wished-for luxury. Yet the fact remains that successful counseling on emotional problems is seldom possible without some good, unhurried attentive listening.

Another and perhaps equally important qualification of the successful counselor is his own personal orientation toward life. A high degree of objectivity in appraising the patient's troubles is essential. The counselor whose interpretations and judgments are strongly influenced by his own irrational biases will not be helpful. Since all of us have some irrational prejudices, the ideal of complete objectivity is never met fully, even by the best of counselors, yet it must be approximated if good therapeutic results are to be accomplished. Objectivity and emotional maturity, to which it is closely related, are powerfully influenced by the emotional experiences we have had in early family life. Some of us have been relatively fortunate in this respect, others quite unfortunate. If a would-be counselor is aware of oppressive emotional difficulties in his own life he is unwise to try to help

others without first submitting himself to successful psychotherapy. It is significant that personal psychoanalysis is a firm prerequisite for all candidates seeking to enter the advanced fields of counseling and psychotherapy.—*Stokes and Harper, M. Ann. District of Columbia, Dec. '54.*

Prolonged Labor—Prolonged labor puts more than the usual strain upon the attendant. The outcome of any labor is not certain, and when it is long delayed even an obstetrician of unusual skill and judgment must be disturbed, to say nothing of the anxiety of the parturient and her family. It predisposes to postpartum hemorrhage, increases maternal morbidity, and exacts its toll in fetal mortality. These are some of the reasons why prolonged labor should be recognized as a clinical entity worthy of serious consideration.

There is no generally accepted definition of prolonged labor, variations in the upper limit of normal ranging between 18 and 48 hours. Most authors agree that active labor for more than 24 hours is prolonged. Since its average length in a primipara is 18 hours, the 24 hour limit seems reasonable. Accurate determination of its length depends upon recognition when labor begins. Not uncommonly preliminary pains occur for a day or two before the actual onset of labor, and should not be considered as part of the duration. True labor begins with the contractions that bring about progressive effacement and dilatation of the cervix. The question is not one of time alone. More than minimum labor in the presence of an insuperable obstacle to delivery is too long, whereas 48 hours or more of mild and infrequent pains until near the end may constitute an easy birth. Only exceptionally should labor be allowed to continue over 72 hours.

The frequency of prolonged labor in reports in the literature varies, since its definition is not uniform. Its incidence, in general, averages between 3 and 4 per cent. About 75 per cent of cases occur with the first pregnancy.

Except where there is gross neglect the prolongation of labor invariably is in the first stage, and usually is the result of faulty and ineffective uterine contractions. Cephalopelvic disproportion, and malpresentation and malposition, especially breech presentation, are commonly associated with a prolonged first stage, but in these situations ineffective uterine action is the real cause of the delay. Why this association occurs has never been satisfactorily explained. Constriction ring dystocia, rarely seen, is considered by Eastman a form of uterine inertia.

The cause of uterine inertia is not clear. As is well known, precipitate labor may occur in a subsequent pregnancy. Under normal or favorable circumstances the uterine contractions of labor are properly coordinated, with contraction of the active portion and relaxation of the passive segment of the organ. In an effective labor the contractions begin simultaneously in the uterine cornua, and spread evenly over the uterus. They occur at regular, gradually diminishing intervals, with gradually increasing intensity and duration. In order that this coordinated activity may occur, the uterine muscle must be in what Danforth calls that "nebulous state of af-

fairs referred to as proper nutrition."

According to Eastman uterine inertia may be attributed to one of three causes: faulty development or diseased conditions of the uterine musculature, anomalies in its innervation, or mechanical interference with its contraction.—*Beierlein, J. Indiana M. A., Dec. '54.*

Burn Therapy: A Surgical Emergency—Early application of well-established surgical principles will forestall many difficulties which have produced an atmosphere of general indifference in the treatment of surface burns in the human. The patient's progress, as a result of proper care, and the physician's ability to rehabilitate him quickly, may become the source of much gratification.

Experience with the care of burned patients, either in the acute or late phase, soon makes one cognizant of certain stumbling blocks to adequate therapy. Shock—with failure to combat it promptly—and over-sedation comprise early difficulties. The individual who is so severely burned as to require hospitalization is also in need of immediate fluid replacement. A delay of four to six hours in administering fluids may prove fatal in instances where an otherwise reasonable chance of salvage exists. This is particularly true in the treatment of children who have been scalded by hot water or coffee, and in whom shock is the greatest deterrent to recovery. Proper care of the burn wound in such instances is usually short-termed and successful.

In Georgia, many burns occur in rural areas or small communities, hence the problem of transportation to a distant hospital or medical center frequently arises. Because the receiving physician can better treat the patient after personally evaluating the surface area involved and because immediate redressings are unsafe, none should be applied beforehand. Wrapping the patient in a sterile sheet, surgical gown, or towels or—lacking these—in a freshly laundered sheet, if he is to be moved any distance, will provide adequate initial protection. In transit, the patient should be given Hartmann's (Ringer's-Lactate) solution or five per cent dextrose in normal saline intravenously. Dextrose in distilled water or other fluids should not be given subcutaneously for they may produce more profound shock or water intoxication. In a recently reported fatality, intravenous fluids were omitted and the patient was allowed to drink copious amounts of tap water en route to the hospital, only to die of water intoxication shortly after his arrival.

Every physician should be familiar with the appearance of third degree burns and the physical changes (ably described in surgical texts and journal publications) that accompany them. Prompt recognition leads to early debridement, followed shortly by covering the granulating areas with split thickness skin grafts to promote a less painful course of recovery and to prevent morbidity and many late sequelae. This course should be followed even in relatively small third degree burns affecting no more than eight to 10 per cent of the body surface. . . .—*Ed., J. M. A. Georgia, Dec. '54.*

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THE MONTH IN WASHINGTON

Because this is a new Congress and under new leadership, a number of new bills can be expected in the health field. But the Democrats also can be expected to devote a vast amount of time to health legislation that was previewed last session by the Republicans.

In fact, one of the more prominent bills on the list, that providing federal reinsurance of health insurance plans, was subjected to lengthy hearings before it finally met defeat in the House late in the last session. So thoroughly was it dissected then that it will be surprising if the friends of reinsurance can find anything else favorable to say about it, or its critics can find anything else wrong with it. How this Republican bill will fare in Democratic committees now is one big question.

There is always the possibility, of course, that some of the major bills to be presented again will be so amended that new decisions will be called for. For example, the administration's experts all fall have worked tirelessly to make the reinsurance bill more palatable.

Like the reinsurance bill, the proposal to revamp the procedure for distributing public health grants to states was well worked over last session. It passed the House, but the Senate committee was unable to untangle all the knots it discovered, so there was no final action. This, too, is up again this year, labeled as difficult and touchy but nonpartisan.

Another well-advertised bill coming up for action is that to set up a program of contributory health insurance for federal employees. Last session a Senate committee held a one-day hearing on this bill, admittedly merely to get the proposition "on the record" so it could be freely discussed between Congresses. A task force from the Civil Service Commission has been trying to hammer out a more workable version of the bill, and has found the task a formidable one. But despite the complications, Congress will be asked to enact some bill of this type.

Although the bill definitely is of Republican origin, there is no reason to expect that it will receive a hostile reception from the Democrats in either House. It is generally accepted as a too-long delayed attempt to

bring the federal government into line with private industry.

The bill for expanding medical care for military dependents has about the same history. After months of planning and conferences, bills were introduced last year in House and Senate to get the idea out into the open for the benefit of Congress and the public. Because the plan is so highly controversial, however, no hearings were held last session. The same bill is going before Congress again.

Here the fundamental issue is whether military hospitals and uniformed physicians shall supply the preponderance of this service to dependents, or the dependents shall be treated largely by civilian physicians and in civilian hospitals.

Last session the Defense Department prepared the draft of a bill to set up a number of military medical scholarships. Because bills originating in one department that might affect another first must be submitted to the latter for comment, this bill was turned over to Mrs. Hobby's Department of Health, Education, and Welfare. There it rested until after Congress adjourned. The 84th Congress will be asked to enact the bill, possibly as an alternative to extending the Doctor Draft, which is scheduled to expire next July 1.

Efforts will be made, but not necessarily with the Eisenhower administration's help, to enact some sort of legislation for federal guarantee of hospital mortgage loans. This subject was gone into in great detail last session by Mr. Wolverton's House Interstate and Foreign Commerce Committee, but the committee finally turned down Mr. Wolverton and refused to report out the bill for action. It had widespread labor support last year, but was opposed by the AMA as discriminatory, in that it would offer more assistance to closed-panel practice than to other forms of medical practice.

Indications are that Mrs. Hobby's department will sponsor legislation to aid medical schools, a subject that was not taken up in the last Congress but that attracted considerable attention in years past.

ANNUAL MEETING
OF THE ASSOCIATION
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APRIL 21, 22, 23

ROUNDUP STORY
HOUSE OF DELEGATES

AMERICAN MEDICAL ASSOCIATION
MIAMI MEETING
NOV. 29-DEC. 2, 1954

Geriatrics, medical ethics, internships, grievance committees, hospital accreditation, osteopathy, the doctor draft law, state-subsidized medicine and malpractice insurance problems were among the major subjects of discussion and action by the House of Delegates at the American Medical Association's Eighth Clinical Meeting held Nov. 29-Dec. 2 in Miami.

During the meeting the A. M. A. Board of Trustees also announced the appointment of a 13-member Commission to make a comprehensive survey of the various types of plans through which the American people receive medical services. The Commission, headed by Dr. Leonard W. Larson of Bismarck, N. D., member of the Board of Trustees, will begin work immediately and will require at least a year to complete its survey.

Named as the 1954 General Practitioner of the Year was Dr. Karl B. Pace of Greenville, N. C., whose selection by a special committee of the Board of Trustees was announced at the opening session of the House of Delegates on Monday by Dr. Dwight H. Murray of Napa, Calif., Board Chairman. Dr. Pace received the medal and citation, presented annually for community service by a family doctor, from Dr. Walter B. Martin of Norfolk, Va., President of the American Medical Association, immediately after the announcement.

Other highlights of the opening session were addresses by Dr. Martin; Mr. Seaborn P. Collins, National Commander of the American Legion; Mrs. Oveta Culp Hobby, Secretary of Health, Education and Welfare, and Mr. Edwin J. Faulkner, President of the Woodmen Accident and Life Company of Lincoln, Neb.

Mr. Collins told the House that he is willing to appoint qualified Legion representatives on a committee to take part in joint Legion-A. M. A. study of veterans' hospitalization. Later during the meeting the Board of Trustees announced appointment of a three-man committee to meet with the Legion on the issue of veterans' medical care. The members of the A. M. A. commit-

tee are Dr. Elmer Hess, Dr. David Allman and Dr. Louise Orr.

Registration toward the end of the third day of the Clinical Meeting included 3,167 physicians; 3,441 guests, including residents, interns, nurses and others, and approximately 900 exhibitors and exhibitors' guests—for a grand total of more than 7,500. Final total registration at the 1953 Clinical Meeting in St. Louis was 7,716.

NEW A. M. A. GERIATRICS UNIT

The House of Delegates passed a Pennsylvania resolution which directed that the A. M. A. Board of Trustees "consider the creation of an organization on geriatrics within the present structure of the American Medical Association, the purposes of which shall be (1) to develop and assist committees on geriatrics and gerontology originating from constituent state associations and component county societies of the American Medical Association; (2) to act as a liaison between such state and county committees so there shall be a free flow of information between all levels of organized medicine on the subject of geriatrics; (3) to make available to the American people such facts, data and opinions concerning the subject of geriatrics as may be considered of value in alleviating social and medical problems created by the increasing population of older age groups; and (4) to perform such other duties as will improve and advance the medical care rendered to people of the older age group."

MEDICAL ETHICS

Accepting a recommendation in a report of the Council on Constitution and By-laws, the House amended Section 7 of Chapter I of the Principles of Medical Ethics so that it now reads as follows on the subject of patents and copyrights:

"A physician may patent surgical instruments, appliances and medicines or copyright publications, methods and procedures. The use of such patents or copyrights or the receipt of remuneration from them which retards or inhibits research or restricts the benefits derivable therefrom is unethical."

In another action involving medical ethics, the House rejected a Kansas resolution which would have removed Section 8 of Chapter I from the Principles of Medical Ethics. The Reference Committee on Miscellaneous Business, in recommending disapproval of the resolution, said that "the

American Medical Association would fail to assume a vital responsibility if no provision is included in the Principles of Medical Ethics regarding the problem of ownership of drug stores and dispensing of drugs by physicians . . . It is possible that some phases of this principle are susceptible of amendment or change, but certainly the entire principle should not be discarded."

REPORT ON INTERNSHIPS

Acting on the report of the Ad Hoc Committee on Internships, the House accepted a recommendation of the Reference Committee on Medical Education and Hospitals that "the data and judgments of the Ad Hoc Committee on Internships will provide valuable guidance to the Council on Medical Education and Hospitals and with this in view it is recommended that the report be referred to the latter for its further study and guidance." Following are a few excerpts from the report of the Ad Hoc Committee on Internships:

"It is our opinion that graduates of foreign medical schools should be considered for intern appointment in approved hospitals only when there is satisfactory evidence that:

"1. Language difficulties will not seriously impair the program.

"2. The same educational standards are applied to graduates of foreign schools as to graduates of approved American medical colleges.

"3. The appropriate state licensing board approves . . .

"The Committee believes that the present standards detailing only the number of annual admissions, autopsy rate, number of beds and assignment of an intern to from 15 to 25 beds are without significant meaning unless and until every local situation is reviewed 'on the grounds' and with full opportunity for discussion between the representative of the accrediting body and representatives of the hospital's governing board and its medical staff. . . .

"Had the 'two-thirds rule' remained a requirement and been rigidly applied to the two consecutive intern years 1952-3 in combination with 1953-4 it would have removed 448 hospitals, cancelled 4,205 internships to which 784 students were matched in those years, and reduced the number of internships available to 6,766. . . .

"The committee suggests consideration of

some requirement based on filling a percentage of approved internships and a time limit to eliminate some of the unhealthy aspects of the present situation. The following requirement is recommended: Any internship program which in two successive years does not obtain one-fourth of its stated intern complement be disapproved for internship training.

"As applied to the figures for 1952-3 in combination with 1953-4, this requirement would have removed 277 hospitals, cancelled 2,139 internships to which 80 students were matched in those years, and reduced the number of internships available to 8,832."

GRIEVANCE COMMITTEES

In order to improve efficiency and maintain high standards in the operation of grievance or mediation committees, the House endorsed the principles of two similar resolutions introduced by the Colorado and Mississippi delegations and asked the Board of Trustees to appoint a committee to study and report on recommended standards for the operation of such services. Both resolutions had emphasized the valuable public service aspects of grievance committees and had suggested that the committee appointed by the Board of Trustees be composed of representatives from constituent societies in which grievance committees have been effective and useful.

HOSPITAL ACCREDITATION

In place of an Indiana resolution protesting certain situations arising in connection with hospital inspections, the House adopted the following substitute resolution to resolve the problems in question:

"Resolved, That the Secretary of the American Medical Association be directed to request that the Joint Commission on the Accreditation of Hospitals supply a copy of the letter of notification regarding the results of the survey of each hospital to the Hospital Administrator, to the Chief of the Professional Staff, and to the Chairman of the Governing Board of the Hospital."

OSTEOPATHY

The House concurred in the following supplementary report of the Board of Trustees on the osteopathic situation:

"Contingent on the receipt of the report from the Committee to Study the Relations Between Osteopathy and Medicine of its 'on campus' observations of osteopathic schools,

the House of Delegates in June 1954 agreed to hold in abeyance any action on this important subject until this meeting.

"The Committee, after meetings and extensive negotiations with the American Osteopathic Association, has now made final arrangements for visiting five of the six schools of osteopathy, and these plans have been approved by the Board of Trustees.

"It is the recommendation of the Board, therefore, that consideration of this matter be held in abeyance by the House of Delegates until the June 1955 meeting, at which time the Committee expects to have a complete report of its findings concerning the nature, scope and quality of education in schools of osteopathy."

THE DOCTOR DRAFT LAW

The Reference Committee on Medical Military Affairs considered several reports and resolutions involving the doctor draft law, and then proposed the following policy statement which was adopted by the House of Delegates:

"(A) That on the basis of current information the House of Delegates commend and express itself as being in complete accord with the Board of Trustees and its Council on National Defense that the 'Doctor Draft Law' should not be extended after June 30, 1955, and that the House of Delegates further express its confidence in the ability of the Board of Trustees and its Council on National Defense to handle properly any new situation which may develop in regard to this highly complex and involved problem.

"(B) That the Board of Trustees and its Council on National Defense continue to study the problem of providing the best possible medical service for members of the armed forces and that they make recommendations to the Department of Defense at the earliest possible time for a more permanent solution to the problem, giving special attention to the further development of a career medical corps with adequate compensation therefor."

STATE-SUBSIDIZED MEDICINE

The most controversial issue at the Miami meeting was a resolution on "Policy on Medical Practice by Tax Supported Medical Schools," introduced by the Mississippi State Medical Association. This resolution provided that:

"The American Medical Association reaffirm its unalterable opposition to socialized and state subsidized medicine regardless of the form which it may assume, and

"The House of Delegates of the American Medical Association is of the opinion that these principles should be considered by constituent and component medical societies together with all other facts pertinent to the local situation in all controversies arising in the employment of medical faculty by state (tax) supported medical schools and be fully considered in effecting action within the framework of this policy."

The Reference Committee on Medical Education and Hospitals agreed with that portion of the resolution regarding "unalterable opposition to socialized medicine" but recommended that the resolution be referred, without approval or disapproval at this time, to the Council on Medical Service which currently is studying the various aspects of this subject. The House adopted the reference committee's recommendation.

MALPRACTICE INSURANCE

Two resolutions and a Board of Trustees supplementary report—all dealing with the problems and difficulties in obtaining satisfactory professional liability insurance—were considered together by the Reference Committee on Insurance and Medical Service. The House of Delegates accepted the reference committee report which said: "Inasmuch as the Board of Trustees has reported that there is in progress a study on the subject, we feel that we can well await the recommendations that the Board is planning to make at the next session. Due to the apparent emergency aspect of the problem, the Board of Trustees is urged to report to the membership as soon as possible, through its component societies, on the progress of this urgent study."

OPENING SESSION

Dr. Walter B. Martin, A. M. A. President, declared at the opening session that "medicine belongs to the people" and physicians are "merely the purveyors" of medical care. Dr. Martin stressed that physicians have an obligation to the people that "goes beyond our own private practice and into the community," and he also emphasized the importance of "continued effort to meet the medical needs of the low-income and other non-insurable groups."

Mr. Collins, the American Legion Nation-

al Commander, said that "we are citizens first and doctors and veterans second," as he urged removal of the veterans' medical care issue "from the area of name-calling and propaganda." The American Legion, he declared, neither expects nor wants the Government to give carte blanche entitlement to medical care to all veterans.

Mrs. Hobby, presenting the case for the Eisenhower Administration's health reinsurance proposal, said: "The health reinsurance proposal represents what we believe to be a necessity. It offers opportunity for self-help without subsidy." Mr. Faulkner, however, expressed the opinion that the reinsurance program "would be foredoomed to disappoint its proponents," and he declared that voluntary health insurance can bring satisfactory protection "to practically all of our people" without a Federal reinsurance program.

AWARDS AND CONTRIBUTIONS

At the closing session of the House of Delegates the American Medical Association received a citation for pioneering in helping to bring educational television to the American public. James Keller, chairman of the Miami Citizens Committee for Educational Television, presented the award on behalf of the National Citizens Committee for Educational Television. Dr. Martin accepted the citation for the A. M. A.

At the same session the Utah State Medical Society, represented by Dr. George M. Fister of Ogden, presented a check for \$10,355 to the American Medical Education Foundation to aid in relieving the financial plight of the nation's medical schools. The contribution was received by Dr. Louis H. Bauer, president of the foundation, who also announced that a check for \$1,000 had been contributed by the Southern Medical Association.

1957 CLINICAL MEETING

Philadelphia was chosen as the place for the 1957 Clinical Meeting, the dates of which will be announced later. Invitations also had been received from Denver, Detroit, Mexico City and Washington, D. C. The Clinical Meeting will be held in Boston in 1955 and in Seattle in 1956.

HEALTH FAIR

As the A. M. A. Clinical Meeting came to a close on Thursday, Dec. 2, a health fair for the public opened in Miami's Bayfront

Auditorium under the auspices of the Dade County Medical Society. The fair, to be open through Sunday with more than 80 exhibits featured, marks the first time that such an event has been held in connection with the A. M. A. Clinical Meeting.

X-RAY TECHNICIANS TO CONVENE

Billy N. Glass, R. T., President of the Alabama Society of X-Ray Technicians announces that the 8th annual convention of Alabama X-Ray Technicians will be held at the Whitley Hotel, Montgomery, Alabama, February 25 and 26, 1955.

V. D. POSTGRADUATE COURSE

A postgraduate course on venereal disease for practicing physicians is to be offered January 31-February 4, 1955 by the Division of Graduate Medicine of Tulane University School of Medicine with the co-operation of the U. S. Public Health Service. All aspects of the venereal disease problem will be covered by nationally known authorities in this field. The course is approved by the American Academy of General Practice and no tuition fee will be charged. Further information can be obtained from the Director of Graduate Medicine, 1430 Tulane Avenue, New Orleans 12, Louisiana.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The eighteenth annual meeting of The New Orleans Graduate Medical Assembly will be held March 7-10, with headquarters at the Municipal Auditorium.

Eighteen outstanding guest speakers will participate and their presentations will be of interest to both specialists and general practitioners. The program will include fifty-four informative discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposia, medical motion pictures, scientific exhibits, round-table luncheons and technical exhibits.

The Assembly has planned another interesting postclinical tour to follow the 1955 meeting in New Orleans. On Saturday, March 12, a party composed of doctors and their families will leave New York for Europe via Pan American World Airways "President Special." The itinerary includes France, Italy, Germany, Denmark, Sweden

and England, and arrangements have been made for medical programs in these countries. The tour ends in England and the group will return to New York, sailing April 7 from Southampton on the "S. S. Liberte," or by Pan American World Airways.

Details of the New Orleans meeting and the postclinical tour are available at the office of the Assembly, Room 103, 1430 Tulane Avenue, New Orleans 12, Louisiana.

THE ILLER BRACE

A brace for cerebral palsy victims, developed by an Air Force officer in his spare time, may change the brace-manufacturing industry from a custom-tailored business to one of mass production.

Maj. Werner J. Iller, of the Air Research and Development Command's Wright Air Development Center, near Dayton, Ohio, said his brace is 65 per cent lighter, can be mass-produced at a much lower price than braces currently cost, allows for six inches of growth and is more comfortable for the wearer.

Medical authorities at the Wright-Patterson Air Force Base Hospital were so impressed with Major Iller's drawings that they requested the Experimental Fabrication Branch of WADC's Directorate of Materiel to construct a brace in its spare time. Three braces, one of each type, were fabricated, as well as a complete set of spare parts.

Major Iller's six-year-old son, Roy C., who suffers cerebral palsy, is testing the brace, while an eight-year-old daughter of another WADC employe is wearing the spare parts, which were assembled into a complete unit.

Though the brace was designed particularly for cerebral palsy victims, its use by victims of other crippling diseases and injuries is believed possible by its developer. At least, Major Iller said, the principles evolved could be adapted to other types of braces.

The major, who is in Aircraft Laboratory's Structures Branch, applied improved principles to give the brace structural integrity. His weight saving is accomplished by the use of heat-treated aluminum tubing and elimination of supports between the legs.

Many children with cerebral palsy expe-

rience scissor action when they walk. That is, their knees will come together and their feet will cross each other in walking. Conventional braces overcome this handicap by separating the legs with inner members, which are uncomfortable, heavy and prevent lifting of the feet higher than a few inches. Walking upstairs is a virtual impossibility for children so harnessed.

The rigidity of the side members and waistband of the Iller brace, however, holds the legs apart and makes the inner members unnecessary. Besides the tubing, both upper and lower side members are hinged with double slots, specially designed to take out the side load and binding during fore and aft motion. These slotted joints are equipped with aircraft-type antifriction ball bearings and provide for the installation of the Klenzak locking device, which holds the leg straight when not in motion. The Klenzak device is standard on many braces.

The lower leg members were redesigned to eliminate the outer member between the calf and the ankle and to transmit the bending and vertical loads to the outside member from the inside member, as is the case with the conventional braces. By this transmittal, those children whose ankles have a tendency to roll inward experience no difficulty in keeping their ankles straight.

The conventional braces counteract this ankle bending tendency by strapping the foot, but Major Iller's brace uses the child's own weight to keep the ankle straight. The brace thus exerts a rotation outward and thereby counteracts the inward roll tendency.

Provision for growth is made by inserting a length of the hip joint member into the side tubing. As the child grows, the hip joint member slides from the tube to a maximum of three inches. Another three inches is provided similarly in the lower member.

This adjustment is one of the features that makes the Iller brace adaptable to mass production. Though the brace constructed at WADC is almost entirely made of aluminum, by following the same principles, larger sizes could be made for adults. Where aluminum would grow too bulky, heat-treated steel could be used in the same proportions. With mass production a handbook of instructions would be provided to enable the proper measurements, both phys-

ical and load measurements, for the selection of the correct brace.

One other saving in weight is accomplished in the shoe attachment. By using steel heat-treated to 160,000 to 180,000 pounds per square inch, the dimensions of the parts have been reduced by more than 50 per cent. A tongue under the shoe also can be bent to provide arch support for those children needing it.

In developing his brace, Major Iller also redesigned the waist band, thigh bands and ankle bands. Whereas the conventional brace uses bent steel or bent aluminum to form the waistband, a sandwich type of band is used on the Iller brace. This might be aluminum skin with aluminum honeycomb, aluminum skin with foam phenolic resin, foam wrapped in fibre-glass and using no metal, aluminum skin and honeycomb filled with foam, or aluminum skin and foam wrapped in fibre-glass. Like clothes, the waist band can be sized with minor adjustments in the foam-rubber band which is part of it.

The thigh and calf cuffs are constructed of heat-treated aluminum with rolled edges to provide load-carrying capacity without deflection, thus transmitting the loads from the leg to the side tubes. These also provide stabilization of the side tube at the center line on the thigh bone.

All leather work is padded with foam-rubber to permit a better fit.

In developing his brace, Major Iller paid tribute for the assistance given him in designing the bearings to Adolf E. Rahm and William E. Crowl of the Bearings Unit of Aircraft Laboratory. Members of the medical profession who aided and encouraged Major Iller are Col. Roy Rounds, who since has returned to civilian practice, and Maj. John W. Payne, of the base hospital.

William W. Hetherington has been named managing publisher of Today's Health magazine, the official consumer publication of the American Medical Association.

Dr. George F. Lull, secretary-general manager of the AMA, announced the creation of the position and Hetherington's appointment. He said "it is contemplated that the magazine, with more than 350,000 circulation, will be expanded and developed to further attain the basic objective of publishing a modern, authentic, effective and popular publication for the general public. Mr. Hetherington's duties will include the coordination of the editorial, circulation and advertising sections of the publication."

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

SIGNS OF THE TIMES

W. A. Dozier, Jr.

Director of Public Relations

One of the basic purposes of a public relations program is to attempt to get the people concerned at least to awaken to the social forces present in their surroundings. This applies to local, state, national, and even international forces. Once the group is conscious of these forces, the next step is to try to get each member of the group to identify himself with various activities and to become a part of the life of his times.

Leaders of the medical profession have for several years emphasized the importance of civic activities by physicians. Your Committee on Medical Service and Public Relations has urged you to become a part of your local community and not stay in the background any longer. A partial indication of how the Alabama profession has reacted will soon be forthcoming. A survey is currently underway which will show how many Alabama physicians are members of service clubs. This will be reported later.

In urging the profession to become aware of present trends, your leaders did not remind you not to overdo the job. Perhaps that was not necessary. It is very likely, also, that unknown extenuating circumstances were present in a situation recently indicated in a news item which reported: "Rio de Janeiro (UP)—More than 2,000 officially-employed physicians have threatened a strike to protest the government's refusal to grant a blanket wage increase to public workers who have college degrees." A cursory glance, which was all that was afforded by the above quote, would seem to indicate that the physicians had too closely aligned themselves with the present and with current practices.

The situation in Brazil is perhaps an extreme one. The same would be true of a county medical society which had no member who was actively engaged in some local civic endeavor. The ultimate aim is to have all the members of the profession actively participating in community life. Dr. Holland T. Jackson aptly summarized the sit-

uation in his article "Medicine's Challenge—and Reply" which appeared in the October 1954 issue of GP.

Dr. Jackson says, "To achieve prestige, and to deserve it, the new man of medicine must fill as perfectly as possible the role that the public envisions for him. If he fails to fulfill the stereotype the public sets for him, he will lose patients, and he will also fail to receive the adequate financial return that he sees as his just due for his lengthy and arduous period of training. It is no longer realistic to say that a physician is not interested in politics, in economics, in education, church and community life in general. He cannot live above or beyond them, he is part of them, his life inextricably interwoven with the lives of those he lives among and serves. He cannot shirk civic responsibilities. He must be seen and heard as a responsible citizen of his community. The reward will be found within himself, in the respect accorded him in his community, and in his medical practice."

Pancreatitis—Pain is the most outstanding feature of acute pancreatitis. A classic picture of agonizing upper abdominal pain with signs of circulatory collapse is not the most common situation. Other patterns are described and have been classified on the basis of major manifestations of the illness: (1) textbook picture of a heavy meal and alcohol consumed by an obese middle-aged person followed by agonizing epigastric pain and shock; (2) symptoms and signs of acute cholecystitis; (3) a pattern resembling acute intestinal obstruction; (4) rupture of a viscus; (5) a palpable mass appearing after an acute abdominal episode; (6) nonspecific milder illness without a striking clinical history. While these patterns are distinct, it may be more logical to consider the sequential nature of the clinical features more important than classification according to major manifestations of the illness.

When severe, the pain of acute pancreatitis has a deep, boring, agonizing quality particularly unrelenting in its persistence. It is of lesser intensity in many instances. Usually located in the epigastrium, more often to the left of the midline, pain may be noted anywhere in the upper abdomen and frequently referred to the chest or back. Occasionally, it may arise in the lower abdomen or radiate into the flanks or become generalized. Its onset has no specific pattern, being sudden or slow, and often occurring during sleep.—Comer, *J. Louisiana State M. Soc.*, Dec. '54.

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION**D. G. Gill, M. D.****State Health Officer****MANAGEMENT OF DIABETES**

The name of Bill Talbert may mean nothing to you. But to many people who have diabetes he stands out as an example of how much a person afflicted with this chronic disease can achieve. Perhaps this country's best known diabetic, young Talbert is a leading light in the sport of tennis. He played on the 1952 Davis Cup team, and his participation in many championship games has been the object of widespread publicity.

Talbert's tennis playing is his answer to one of the basic elements in control and management of diabetes. That all-important element is exercise. It is now well established that physical activity helps keep a diabetic person's weight and the amount of sugar in his blood normal. But since the wrong kind of exercise or too much of it can be harmful, a physician should prescribe the right kind and the amount.

However, exercise is only one of many factors in the management of diabetes—the condition which results when a person is unable to make full use of carbohydrate foods, that is sugars and starches. The inability to use fully such food is, in turn, caused by a lack of insulin, a substance produced by the organ of the body known as the pancreas. Since the isolation of insulin from the pancreas of animals by Drs. Frederick Grant Banting and Charles H. Best in the early Nineteen Twenties, doctors have been able to compensate for this lack of insulin in the human body by the administration of animal insulin, where needed. This substance has been and is a powerful weapon in the fight to control diabetes. But diabetes is such a complicated condition that one weapon alone is not enough. Even insulin, wonderful though it is, must be supplemented by knowledge and understanding of the "why" and "how" of other aspects of treatment. Although a diabetic is under a doctor's care, much of the management of his condition is, of necessity, left up to him.

Where insulin is taken daily, the diabetic

himself often learns to administer the dose with a hypodermic needle. The doctor teaches him to inject the insulin. Or a member of the diabetic's family may learn to administer the injection and do it for him. Thus, a doctor may prescribe an adequate insulin intake for a particular diabetic, but if the person grows lax and forgets to take insulin at the specified time, or have it administered, he may hasten the onset of dangerous complications. Without insulin, the body cannot burn its sugars and starches properly, and there may be an excessive breakdown of fat with the production of substances called ketone acids in amounts greater than the body can use. Given this set of circumstances, one complication which sets in is diabetic acidosis.

Diabetic acidosis often develops over a period of hours or of days. Early symptoms include nausea, vomiting, severe pains in the abdomen, difficult breathing, drowsiness and a feeling of serious illness. Acidosis can also lead to coma, a state of complete unconsciousness. Fortunately, this feared complication seldom occurs nowadays, except in untreated or carelessly treated cases, or in the presence of infections. However, in the event a diabetic feels sick, he should send at once for a doctor and then go to bed. Treatment usually must be carried out in a hospital.

The diabetic patient must also guard against insulin reaction or shock. Such a reaction is the result of too much insulin, and may come about from taking too big a dose of insulin, from eating too little food, from not eating soon enough after insulin is taken, or from taking more exercise than usual. Fortunately, the patient himself can prevent insulin reaction from developing into anything serious. He is taught to recognize these symptoms which, in many instances, develop within a few hours after an insulin injection: hunger, trembling, sweating and nervousness. Another set of symptoms may occur many hours after insulin is taken. They are headache, nausea, drowsiness, and a sick feeling. The doctor advises the patient to treat such symptoms at once by eating some sugar or orange juice or

some such food every fifteen or twenty minutes until the trouble disappears. Doctors also advise patients to carry two lumps of sugar with them at all times for emergencies, and to carry an identification card stating that they are diabetic.

Diet, too, is an important controlling factor in diabetes. In fact, diet alone is often enough to control the condition. Insulin is reserved for those cases which cannot be treated otherwise. Sugar, candy, jam desserts and soft drinks containing sugar are among the foods which many diabetics cannot eat. However, plain sugar and sweets are not the only foods dangerous to the person with diabetes. Anything starchy, such as spaghetti, potatoes and cereals, is changed during digestion almost entirely into sugar; cheese, meats and other protein foods also may be converted by more than one-half into sugar. Even butter and fats yield about a tenth of their content in sugar. Thus, the "hidden" sugar content of many foods is the thing that makes overeating harmful for the diabetic. It is also the reason why a doctor insists on strict compliance with the dietary regimen he prescribes. Yet with many restrictions, the diabetic's diet need not be monotonous. He can discuss with his doctor the possibility of substituting various foods with the same food value for those listed on his basic diet.

The diabetic helps to manage his own case in still another way. He is taught how to test his own urine at regular intervals to see if the body is using sugar as it should. If differences are noticed, he should consult his doctor about necessary changes in diet and dosage, if he is taking insulin.

Diabetics are somewhat more prone to have infections than non-diabetics. This is due mainly to the poor resistance their bodies are able to muster against infections. For that reason, good health habits—to prevent wounds and injuries from occurring in the first place—are doubly important. One physician, Dr. Charles W. Styron, writing in a North Carolina State Board of Health publication, stresses the special care a diabetic should give to his mouth and teeth. In addition to the dental health rules which apply to everyone, such as brushing the teeth as soon as possible after eating, and paying regular visits to the dentist, gum massage is particularly important for the diabetic. The gums can be massaged with the fingers,

working the fingers toward the teeth in a rotary motion.

The diabetic's feet are vulnerable spots for infections to take hold. The ingrown toe nail, which may be only a pain and a bother and which may heal in a short time for many people, may become gangrene for the person with diabetes. Dr. Styron, in that North Carolina publication mentioned earlier, recommends the use of lanolin as often as necessary to keep the skin of the feet soft and free from scales and dryness, but not tender. If they become too soft, rubbing them with alcohol is recommended. If the toe nails are brittle and dry, they should be softened by soaking in warm water and with lanolin. Nails should be cut straight across, but not too short, to avoid injury to the toes. The diabetic with corns and callouses should see a doctor about removing them, and under no condition should the patient try to remove them with patent medicines or by cutting. Although a foot injury may be a minor one, the diabetic should administer prompt first aid and he should consult a doctor immediately. In treating the wound, the patient should avoid strong irritating antiseptics such as coal tar products and iodine. The foot should be elevated as much as possible until recovery and the patient should avoid using the foot.

Although many persons treat common colds without medical advice, the diabetic who is sick with a cold or influenza can ill afford not to call a doctor. The common cold which the otherwise healthy person can often throw off without too much trouble may develop into much more serious complications in the diabetic. With either a cold or influenza, the diabetic should go to bed, and take a cup of coffee, tea or broth every hour. The doctor who is called can adjust the diet to the special need at the time.

Although older persons develop diabetes much more often than young persons, children not only can but do have the disease. The National Health Survey conducted by the U. S. Public Health Service in the middle Nineteen Thirties showed that through the age of fourteen approximately one in every 2,500 persons was known to have diabetes. Naturally, much of the management of the condition in a child is left up to the parents. However, even very young children learn to do things for themselves, and

it is not unusual to find a child administering his own insulin. Summer camps for diabetic children have been invaluable in helping youngsters learn to care for themselves. There are reported to be seventeen such camps in the United States, and Alabama is fortunate in having one of them. It is Camp Seale Harris, named for Dr. Seale Harris of Birmingham who has devoted much of his life to working with metabolic diseases. In 1949, he was awarded the American Medical Association's highest award for his work in diseases of the pancreas. The camp, located at Citronelle, in the northern part of Mobile County, observed its sixth anniversary in August 1954, when the annual two-week camping session was held. Camp Seale Harris is operated by the Mobile Diabetic Clinic and directed by a licensed physician. He is assisted each year by one or more volunteer physicians and several other staff members, including trained nurses. The camp site is made available without charge by the Mobile County Public School Board and the Mobile Area Girl Scouts. Neither is there a charge to the campers, for the camp is financed by voluntary contributions.

In 1954, sixty-five children were enrolled at the camp. They came from Alabama, Mississippi and Florida, and they ranged in age from eight to fourteen years. The only other reported camp for diabetic children in the South is in Chattanooga, Tenn.

While at Camp Seale Harris, children with diabetes not only enjoy a varied recreation program but they also learn to live with their disease, to care for themselves by making their own tests and measuring food for their diets. Each afternoon during the two-week session is devoted to showing films on diabetes.

The children are never alone. A member of the camp staff is with each group at all times and a container of orange juice is always nearby to be used in case of sudden insulin reaction. A new feature of the 1954 session was the provision of insulin trays for each individual cottage. Previously, insulin injections had been administered at one central location for the entire camp.

As one writer put it, today's diabetic is lost in the crowd. He looks like anyone else. He can do almost anything. And statistics show that diabetics live a long life. Their life expectancy has been constantly increas-

ing for approximately thirty years. However, this happy state has come about because, and only because, of increased patient-doctor cooperation. One doctor has said it would be most gratifying to be able to state that all diabetics under treatment are model patients. Unfortunately, such is not the case. A prime goal for the present and the future, then, is the encouragement of a greater understanding on the part of the diabetic for his condition.

Aid for Auto Chest Injuries—A technique has been devised to aid breathing by persons whose chests have been crushed by the steering wheel in auto accidents. Three Chicago physicians reported they have "stabilized" soft chest areas and successfully solved a difficult breathing problem for such patients by the use of weighted traction applied on pins painlessly inserted in the chest.

More cars, higher speeds and "fantastic increases" in horsepower mean that more serious injuries, and a proportionate increase in chest injuries, can be expected. Such injuries now cause 20 to 25 per cent of automobile accident deaths. One of the most pressing problems in the treatment of "stove-in chest" is stabilization of the chest wall. Drs. Theodore R. Hudson, Robert T. McElvenny and Jerome R. Head, of Northwestern University Medical School and Wesley Memorial Hospital, said their technique may help solve this problem. (J. A. M. A., October 23, 1954)

In such chest injuries, the normal movement of the diaphragm and ribs is disrupted when injury-softened chest areas sink in instead of expanding with each breath. This also impairs coughing, which results in flooding of the lungs by secretions which normally would be coughed away. A vicious cycle is set up "as desperately ill patients struggle for increasing amounts of air only to find the situation made worse by their own efforts."

In minor injuries adhesive strapping is satisfactory, but for serious ones existing techniques may not be very effective. They devised a method by which the softened part of the chest is held up and out by traction, with weights suspended from an overhead frame such as that used for some fracture cases. Pins placed in the softened part of the chest wall are held by metal spreaders, or "fingers," fastened to weighted cords. The pins are placed while the patient is under a local anesthetic, and the pull of the weights is painless. The pins cause no harm to the tissues around them and leave only small pinpoint scars.

Five patients have been treated by this method. Two of these patients died of other serious accident injuries, but the technique was successful in aiding their breathing. Two patients recovered completely without after-effects. A fifth patient was successfully treated in this way after the physicians wrote their report.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

October 1954

Examinations for diphtheria bacilli and Vincent's	318
Agglutination tests	774
Typhoid cultures (blood, feces, urine, etc.)	516
Brucella cultures	16
Examinations for malaria	97
Examinations for intestinal parasites	3,113
Serologic tests for syphilis (blood and spinal fluid)	23,534
Darkfield examinations	2
Examinations for gonococci	1,546
Examinations for tubercle bacilli	3,243
Examinations for meningococci	1
Examinations for Negri bodies	99
Water examinations	1,673
Milk and dairy products examinations	5,167
Miscellaneous examinations	2,355
Total	42,454

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR SEPTEMBER 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered During September			Rates (Annual Basis)		
	Total	White	Colored			
				1954	1953	1952
Live births	7594	4572	3022	28.8	28.8	30.2
Stillbirths	160	68	92	20.6	23.0	24.9
Deaths, stillbirths excluded	1933	1107	826	7.3	7.8	7.6
Infant deaths—						
under one year	222	103	119	29.2	28.7	29.7
under one month	166	73	93	21.9	20.7	22.7
Cause of Death						
Tuberculosis, 001-019	35	16	19	13.3	15.0	14.8
Syphilis, 020-029	9	2	7	3.4	4.2	3.5
Dysentery, 045-048					0.4	0.8
Scarlet fever, 050					0.8	
Diphtheria, 055						1.9
Meningococcal infections, 057	1	1		0.4	1.2	
Poliomyelitis, 080, 081	2	2		0.8	1.9	1.2
Encephalitis, 082, 083	1		1	0.4		0.4
Measles, 085						0.4
Malignant neoplasms, 140-205	264	177	87	100.2	102.1	95.3
Diabetes mellitus, 260	18	11	7	6.8	7.3	7.0
Pellagra, 281	1	1		0.4	1.2	
Vascular lesions of central nervous system, 330-334	249	135	114	94.5	109.7	82.8
Other diseases of nervous system and organs of special sense, 340-398						
Rheumatic fever, 400-402	26	15	11	9.9	6.9	8.2
Diseases of the heart, 410-434	454	302	152	172.4	170.8	232.6
Hypertension with heart disease, 440-443	133	61	72	50.5	56.4	
Diseases of the arteries, 450-456	33	22	11	12.5	12.7	10.1
Other diseases of circulatory system, 444-447, 460-468	20	6	14	7.6	16.5	12.8
Influenza, 480-483	3	3		1.1	0.8	1.6
Pneumonia, 490-493	38	24	14	14.4	16.1	13.2
Bronchitis, 500-502	6	3	3	2.3	0.8	0.8
Appendicitis, 550-553	3	2	1	1.1	1.5	0.8
Intestinal obstruction and hernia, 560, 561, 570	15	4	11	5.7	3.4	1.9
Gastro-enteritis and colitis (under 2)						
571.0, 764	12	1	11	4.6	4.6	7.8
Cirrhosis of liver, 581	14	12	2	5.3	3.4	5.8
Diseases of pregnancy and childbirth, 640-689	8	1	7	10.3	10.4	23.8
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	2		2	2.6	2.6	7.5
Congenital malformations, 750-759	29	18	11	3.8	3.3	3.7
Accidental deaths, total, 800-962	140	86	54	53.2	63.7	50.6
Motor vehicle accidents, 810-835, 960	67	42	25	25.4	31.8	21.4
All other defined causes	335	170	165	127.2	131.6	150.9
Ill-defined and unknown causes, 780-793, 795	80	29	51	30.7	28.4	38.5

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

AMERICAN MEDICAL ASSOCIATION NEWS

DR. SCHWEITZER DESCRIBES MEDICINE IN THE JUNGLE

Dr. Albert Schweitzer, Nobel prize winner who celebrates his 80th birthday next month, recently told of conquering illness and opposition in Africa with the help of building tools, a knife, and baby shirts.

In a description of his 40 years in Lambarene, Dr. Schweitzer also expressed "heartfelt thanks to my American friends for the help I have received from them."

In an article in the December 25 Journal of the American Medical Association, Dr. Schweitzer said he arrived in Lambarene in the spring of 1913 with his wife, a trained nurse, and began his first jungle battle—building a hospital.

"All work progresses very slowly in the jungle, because trained and disciplined workers are not available," he said. "One has to deal with primitive natives, who do not have to do paid work to earn their livelihood. They work only as a sort of favor and when and if it suits them.

"During the free time left to me after treating the patients, I myself became an apprentice builder."

Until the building was ready, he treated patients in a former hen house next to his living quarters. The natives gave "complete trust and confidence from the beginning," largely because he could perform surgery.

"This alone makes it possible (for the colonial physician) to help many patients . . . the native soon realizes that the white physician is superior to his fetish doctor, when he learns that the white doctor knows how to bring cure with a knife."

However, he faced strong opposition from the primitive women who were convinced that no man should come near a woman while she is giving birth.

". . . when a delivery was in progress in a village all men had to remain in their huts," he said. "The births were directed by old women, who resorted to quite senseless procedures in difficult cases . . . the resistance on the part of the old women was great.

"However, I could master this situation in a very simple manner and without many words. Every baby who was born in the hospital was dressed up in a pretty little shirt and a pretty little bonnet, and when the mother returned to the village she was permitted to take along both of these garments.

"Among the natives the newborn infant has nothing on for many months, and it lies beside its mother completely naked. Great astonishment was created in the villages when babies born in the hospital had their own little shirt. Against this the old women could do nothing. It became customary for women to come to the hospital for delivery, and many children now remain alive who otherwise would have died."

Dr. Schweitzer also worked to conquer leprosy and sleeping sickness. In 1913 the chief problem was sleeping sickness, which spread from an isolated area when white traders began hiring bearers. Then the only remedy—and not a very effective one—was sodium arsanilate, which was dangerous even in small doses because it could cause blindness. Only after 1920 when new American and German drugs became available could a campaign be made against the disease.

Dr. Schweitzer was active in the campaign until 1928 when the French colonial government took over. Now, he said, "the campaign against sleeping sickness has been won."

The use of American drugs also "produced the miracle" in treating leprosy. His first patient had suffered for years from severe, painful sores and "everything I had tried . . . had failed."

Then he used sulfones developed in America and "after a few weeks the sores became cleaner, and after some months they closed completely, so that this man who had been lying on his bed, a picture of misery, was now able to walk about. From then on leprosy patients came in large numbers to my hospital and requested treatment."

Dr. Schweitzer said American help arrived during the middle of World War II

when his pharmacy was empty and he didn't know how to pay for patients' food.

"It was due to American aid that my hospital could continue to operate during the Second World War, after I had been cut off from connections with Europe."

ARMY RESEARCHERS STUDY "YOKOHAMA ASTHMA"

An Army medical research team has isolated and studied a peculiar new respiratory disease which American GIs named "Yokohama asthma."

It was first reported in Yokohama in 1946 and so many cases appeared that in 1950 an Allergy Investigation Section was set up to study the unusual illness. Army officers eventually discovered it was also common in other similar areas of Japan.

A report on studies of the disease was made by researchers in the November Archives of Industrial Hygiene and Occupational Medicine, published by the American Medical Association.

"Yokohama asthma" differs from the asthma or hay fever found in the U. S. and the only cure has been to remove the patients from the Yokohama area. Almost half of 200 patients checked during a nine-month period in 1951 had to be sent home. They experienced dramatic relief "shortly after leaving the harbor area of Yokohama."

The illness generally starts with a lingering chest cold during autumn or early winter of the first year of living in Yokohama. Breathing trouble is disturbing but not alarming, until the second year when breathing becomes very difficult between 1 and 3 a. m. By the third year the patient usually is in a condition of status asthmaticus: crisis or shock marked by breathing difficulty to the point of exhaustion and collapse.

There are exceptions, with some patients suffering status asthmaticus after a few months of living in Yokohama, or showing no symptoms until several years after arrival. The disease strikes persons who have never before had asthma or hay fever, and age seems to make no difference, since many children of army personnel in Japan also suffered the illness.

U. S. Army hospital physicians at Yokohama found the disease is also an important medical problem among Japanese and oc-

curred among British, French, and other foreign personnel living in Japan before World War II.

A long study showed that probable cause of the illness is a combination of weed, tree, and grass pollen and industrial contaminants. The geography of the area and heavy smog seemed to be important factors. The researchers said "by smelling the air late in the afternoon in the vicinity of the United States Army Hospital in Yokohama, one could predict with considerable accuracy the number of patients who would seek medical attention that evening."

Other areas where the disease occurred had several features in common with Yokohama: "proximity to a harbor usually surrounded by low hills, sundry manufacturing facilities and the occurrence of 'heavy smog' during the winter months."

The report was made by Lieut. Col. Tyron E. Huber, Surgeon General's office; Maj. Sheldon W. Joseph, Brooke Army Hospital, Fort Sam Houston, Texas; Maj. Edward Knoblock, Walter Reed Army Medical Center, Washington, D. C.; Lieut. Paul L. Redfearn, United States Army Forces Far East, and James A. Karakawa, Washington, D. C.

HYPOTHERMIA MAY HELP IN MANY CONDITIONS

A University of Colorado professor of surgery has said that hypothermia, so-called "artificial hibernation," may someday be valuable in dozens of conditions from heart surgery to ulcers and severe infections.

Dr. Henry Swan said the theory behind the technique is a "romance in biology" and is part of a growing new concept of "great attractiveness" about the body's reaction to injury.

He said hypothermia someday may be used in such conditions as pneumonia and other pulmonary diseases, congenital heart disease, surgery of various kinds, massive skin grafting, internal bleeding, shock, heat stroke, and severe infection.

However, he said his list may be "hopelessly optimistic" and warned that much research is needed before the technique can be widely used.

Dr. Swan made his report in an editorial in the November Archives of Surgery, published by the American Medical Association.

Hypothermia has been used mainly in

heart operations to reduce bleeding. The patient enters a state simulating drugged sleep, with reduced pulse rate and blood pressure, dimmed pain response, and no emotional reaction.

The theory behind the technique is that the human body has developed a state of freedom from its physical surroundings, with complex machinery for keeping the body state normal in spite of widely different outside conditions. This normal state is kept up by reactions in the nerve and gland system, but reactions occur at a high rate of tissue change and chemical action, and require much energy. The body normally is able to supply the energy, but in extreme states too much is used and life can be lost from exhaustion.

To prevent exhaustion in difficult conditions such as surgical operations, the body is numbed and these processes are slowed down. Most important, shivering is prevented, so that when the body is cooled, less energy is used and exhaustion is prevented. Actually, cold is a vigorous stimulant, and reducing body temperature is useful for saving energy only if shivering is stopped, Dr. Swan said. This is what is done in hypothermia.

At present, however, Dr. Swan said the technique has many risks which call for a "state of skepticism." The technique "may hold great promise" but much basic research must be done under controlled laboratory conditions.

WIRE MESH REPLACES PART OF ABDOMINAL WALL

A piece of fine wire mesh, made of rare tantalum metal, was used to replace an extensive section of abdominal wall removed by surgery, two physicians have reported.

The tissue around the mesh healed and grew into it like "the threads of a piece of tapestry," Drs. William Wickman, Miami, and Timothy A. Lamphier, Boston, said.

The tantalum mesh is nonirritating, flexible, easy to work with, and resists infection. The mesh creates strong support in place of missing tissue because the remaining tissue grows into it, they said in the November Archives of Surgery, published by the American Medical Association.

Tantalum, a rare metal element, has been used for plates or disks to replace skull de-

fects caused by wounds. Drs. Wickman and Lamphier used the mesh in a patient from whom a tumor about the size of a grapefruit had been removed from the abdominal section. They said the technique could be particularly useful in surgery of tumors and cancerous growths where removal must be extensive to prevent recurrence but where strong support is needed to prevent hernia. Their patient was able to go back to work in six months with little after-effect.

SOME INFLUENZA MAY APPEAR THIS WINTER OR NEXT

Influenza outbreaks from one type of virus may occur in the United States this winter or next, a U. S. Public Health Service official said today.

It depends on whether influenza continues to recur in a two or three year cycle as it appears to have been doing, according to Dr. Dorland J. Davis, chief of the laboratory of infectious diseases at the National Institutes of Health.

However, improved medical treatment and development of effective vaccines should help to protect against the disease, Dr. Davis said in a signed editorial in the January 1 Journal of the American Medical Association. Mortality rates have gone down and deaths in recent epidemics occurred largely among older persons.

A World Health Organization program for detecting new strains and keeping track of epidemics facilitates action against spread of the disease, he said. All enlisted and commissioned armed forces personnel have been vaccinated. Dr. Davis said possible outbreaks this year would probably be of the type A influenza, for which a vaccine is commercially available.

IRRADIATED BLOOD PLASMA TRIED ON VOLUNTEERS

Experiments with prison volunteers have shown that ultraviolet radiation is of some help in the problem of liver infection from blood plasma transfusions.

Physicians from the National Institutes of Health, Bethesda, Md., said that although ultraviolet radiation apparently does not prevent infection from hepatitis-carrying plasma, it can reduce the length and severity of illness.

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THE PSYCHOLOGICAL ASPECTS OF PEDIATRIC CARE

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Birmingham, Alabama

You may wonder at my temerity in choosing such a subject. In recent years the literature has been full of discussions of the acute infections, the antibiotics, allergy, adrenal insufficiencies, anemias, malignancies, and other disease states. However, I am quite sure that a higher and higher percentage of my time is being devoted to emotional disturbances affecting the patient, the family, or both. Since it is likely you are having the same experience, I thought it might be of mutual benefit to deal with the subject now. Inasmuch as there appears to be no ready solution to these problems, our chief hope lies in frequent discussions in an attempt to arrive at the etiology. As is so often true, discovery of the cause might reveal the solution. I am a pediatrician and not a trained psychologist nor psychiatrist. Therefore, it is not my intention to lead you through the intricacies of psychiatric procedures. Rather, it is my purpose to discuss with you behavior problems instead of psychiatric patients, with the realization that if the behavior situation is not correctly handled, the child may progress to the need of real psychiatric care.

When I began the practice of medicine, routine feeding care did not seem to present much of a problem. The babies ate, slept, and apparently did well without upsetting the household too much. Of course, there

were exceptions. Today, the baby still seems to progress satisfactorily from the doctor's standpoint but the mother has many problems. In my experience it is a rare mother who states that the baby is perfect in every way. She usually says that he is hungry, has the colic, or is sleeping very poorly. Regardless of the formula, she thinks it should be stronger. It is not unusual to have a mother state that her three or four weeks old baby acts like he wants solid food, or may even say he wants food from the table rather than his own. It is my feeling that these complaints germinate from the mother's desire for her baby to develop more rapidly. Her baby must be ahead of all other infants. Life is competitive even at this age. Obviously, the supposed desire for food from the table should not be possible, for the baby should be in another room asleep while the parents are enjoying their meal in peace. But, too frequently, the infant is right at the mother's elbow. The resulting irritability on the part of the mother is reflected in the baby and a vicious circle is started. Another mother is disturbed because a cold cannot be cured within twenty-four hours. She is impatient for Twentieth Century efficiency. It is not unusual to have a child with an acute infection, with temperature 103 to 104, with the mother worrying more about the child not eating than she is about the infection. She may even ask if he might go outside and play in spite of fever. Her standards are incorrect.

At a later age, anorexia will probably develop. It is the child's method of getting more attention. Did you ever see a neglected child without an appetite? I wish

Read before the Northwestern Division of the Association, Tuscaloosa, Nov. 3, the Talladega County Medical Society, and the Muscogee County Medical Society, Columbus, Ga.; and published also in the Muscogee County Medical Bulletin.

The author is Associate Professor of Pediatrics in the Medical College of Alabama.

each of you could have the privilege of hearing Weech's talk on anorexia. He vividly depicts one father sliding down the banister before each meal; otherwise, Johnny remains away from the table. But his greatest drama is when he shows the dad squatting in a chair and laying an egg before breakfast each morning. Sonny would eat no other egg.

Television disrupts meals and causes much excitement and fatigue. As a result, nightmares are common, with a child crying out in his sleep, "Lasso him!" or "The Indians are after me!" Recently, a five year old girl was seen who had refused for the past several months to go to sleep without a light in the room and the mother holding her hand. It took considerable questioning to elicit from the mother the fact that it all started one afternoon while viewing Walt Disney's "Mr. Ichabod" with the "Headless Horseman." Although the mother finally admitted that the child became hysterical and had to leave the theatre, she had not attributed the subsequent difficulty to this episode. I will not be so conservative as to say that there should be no TV, but the programs should be chosen with discretion and they should not interfere with meals and sleep.

The last three patients seen in my office the afternoon before this paper was written presented the following: (Case No. 1)—T. G., five years of age, retires at 7:30 PM, sleeps until 1:30 AM, then wanders around the house for one and a half hours; sucks his thumb, bites his nails, and wets the bed. He had recently set fire to his bed. (Case No. 2)—M. K., seven years of age; appetite off for one month, nervous, irritable. Teacher reported that he did not read well in school, in the second grade; however, the mother thought he read exceedingly well at home. He did not like his teacher, and would frequently slip into the room of his former teacher. Both of these children seemed normal physically and of normal development. (Case No. 3)—D. B., three weeks of age, first child, had gained nineteen ounces in the previous eighteen days. The baby had left the hospital with adequate breast feeding. Now the baby is completely on the bottle. Was reported to have the colic much of the time. The mother was much concerned because the baby regurgitated some sour milk, and she was further upset because of constipation. On

further questioning, it was learned that she thought the baby was constipated because she had had one soft stool only during the day, after having had four the previous day. These three cases are quite illustrative of what we see in every day practice. I will discuss them later in an endeavor to arrive at some solution.

A third grade teacher informs me that she is having increasing difficulty in getting her pupils to participate in group games. If they are not the leader or if they are not immediately chosen for a side, they sulk and refuse to play. They want to be the "king bee."

These problems are not new today, but are merely more numerous. In 1932 Brennemann¹ presented a paper before the Philadelphia Psychiatric Society entitled "Pediatric Psychology in the Child Guidance Movement." He forecast that behavior problems would increase on account of the mounting family tensions. Therefore, let us stop for a moment and try to visualize the changes that have occurred in our family life in the last twenty odd years. In the twenties, a young mother could hire a maid for three dollars a week. While she was devoted to her baby, she did not hesitate to delegate much of the care to the maid. She had some leisure and thoroughly enjoyed it. Today, maids are a rarity. The mother is the chief cook, laundress and nursemaid. Leisure is a rare item.

The old adage, "A little knowledge is a dangerous thing," is quite applicable to the modern mother. Proteins, vitamins, and "a quart of milk a day" are thrown at her on every hand. Don McNeil, on the Breakfast Club, states that many pediatricians advocate strained meats at three weeks of life. A neighbor gives her baby straight unboiled cow's milk at three months of age. The present day mother thinks her offspring is being neglected if he does not participate in these luxuries. Is it any wonder, then, that she becomes "a bundle of nerves"? How could this help but be reflected in the children? Books and magazines fail to make the mother realize that their articles are referring to average children and do not state that there are wide variations from this average, well in the realm of normalcy.

I have had a young mother report to me

1. Brennemann: J. Pediat. 2: 1, Jan. '33.

in great distress that her baby had only slept twenty-one hours during the previous twenty-four, and a book in her hand stated that he should have slept twenty-two. I am convinced that many of our problems are due to the earnest desire of the mother to have her baby perfect and superior to any other infant, both in appearance and accomplishments. In her endeavor to succeed, she is much like the freshman in his first varsity game. The ball is fumbled. As I stated above, life is competitive. She is concerned if he does not stool and eat and gain in weight just as the literature records. It is my custom to spend considerable time at the first visit of each new baby. At this time, I try to point out that there is a wide variation in the normal in every aspect of the baby's life, such as eating, sleeping, stooling, and in his behavior pattern. I believe that I have average ability in talking to parents, and that they have faith in what I am stating, but the logic of neighbors and friends seems to be overpowering, or, rather, it might be simpler to state that some mothers would rather believe the worst.

Carnation Milk advertises milk from contented cows. Certainly I believe that success in infant and child care is fundamentally linked to a contented mother; that is, one that is emotionally well balanced. Therefore, we have the great obligation thrust upon us to take each new mother and to convince her that she is not going through an unusual experience, since babies have been born since the beginning of the world. While it is new for her, we must convince her that her baby should be a great joy, and should be a welcomed addition to the family rather than a ball and chain. In this era of fast moving entertainment and no maids, more parents are deciding that their baby is a ball and chain, and seem to be resentful. In an honest attempt to suppress this feeling of resentment, conflicts arise. Other parents merely laugh it off and haul the baby around all hours of the night and then cannot understand why the baby insists on being hauled at 3:00 AM.

I do not consider myself old fashioned when I still recommend breast feeding. Physiologically, it is the food that nature has furnished. Certainly it is the law of animal nature that a mother should care for her young, and breast feeding should be the earnest desire of every human mother. In addition to the nutritional value of breast

milk, the physical contact with the mother should increase the sense of security on the part of the baby and instil greater love in the mother. But breast feeding is dependent on leisure and emotional stability. These are hard to find today. This is particularly true where there are other children in the family.

As a child gets older, the mother is with him every moment of the day. When he wakes up from his nap, the first thing he sees is his mother. He cannot be put out for unrestricted play on account of the danger of getting into the street and being injured by an automobile. He soon is glued either to a radio or a TV set. In Brennemann's¹ address he spoke of the poor little rich child that was cursed with everything she wanted. Today, the child does not have to have rich parents to be cursed with too much attention and an over-abundance of toys. He is literally bored to death with attention and personal possessions, and misses that thrill of having a great desire fulfilled. Is it any wonder, therefore, that we are seeing an increasing number of children entering the first grade at six years of age without the ability to accept certain restrictions successfully, and to face a new director of their lives? I am seeing an increasing number of these children vomit five days a week, but have perfect digestion on Saturday and Sunday mornings. An occasional child even boasts that he is "a problem."

I am sure that you have decided that I am a pessimist, but such is not the case. You will recall that in the beginning of this paper I stated that these cases are becoming more numerous. Even so, I am happy to say that all patients do not fall into the categories that have been enumerated. I merely want to emphasize the necessity of taking action now to lessen them or to see that there are not more of them. In the daily press we see frequent mention of juvenile delinquency, and the tendency is to blame these cases on the parents. I prefer to consider the cases that I have been discussing as instances of juvenile immaturity. If these children are properly handled, they will not progress to the stage of delinquency.

As physicians what can we do to forestall and correct the situations mentioned above? The first step is to face these problems with

confidence that a solution can be found. The obstetrician could begin by giving some sound advice. The objective of nine months of pregnancy should be to produce a healthy baby that will progress through a happy childhood. The prospective parents should be advised in advance that they should expect some restrictions on their previous freedom. The baby is brought into the world at their volition rather than his. Therefore, they have assumed an obligation. Instead of being a burden it should be a thrilling experience to see a product of their union showing new accomplishments each day.

When the baby arrives, further instruction should land on fertile soil. The parents are then advised that babies vary greatly in every respect. Just as all adults do not have the same height and weight, and do not eat and sleep the same, so do infants vary. Aldrich, in "Babies Are Human Beings," states that every baby comes into the world with a predetermined architectural design which is securely locked in his own body. Only God can know the perspective of this design, and we mortals must await the gradual unfolding of the finished product.

It should be our privilege to offer the baby proper food and then let him take the amounts that he desires. If he does not eat as much or grow as fast as the baby next door, but is happy and contented, let us be satisfied. You can lead a horse to water but you cannot make him drink. I firmly believe that a baby and older child can better determine what they need than you and I can, and certainly the parents should not make the decision on account of what is taking place next door. Clara Davis² showed in her memorable experiment that babies over six months of age could be relied on to choose an adequately balanced diet if left to their own discretion. Over a period of several years, they gained normally and remained remarkably free of respiratory infections. Is it not better psychology to offer a child a small amount of food and let him have the satisfaction of cleaning the plate, a job well done, than to try to force him to eat a huge helping which he actually cannot accomplish? Failure begets failure. If the small portion should not satisfy, he

can and will ask for more. What a stimulus it is to his ego to complete a job successfully! A child should neither be bribed to eat nor punished for not eating. Eating should be spontaneous.

Some infants sit alone and teethe early, others crawl or talk earlier than the average. It is important for every mother to realize these variations and not be miserable if her own baby is not ahead of the neighbor's in every respect. Some babies resist and seem to resent toilet training. Others balk at other attempts at civilization. The important thing is to realize that these children are not afflicted with mental deficiency. The boy mentioned above as setting fire to his bed was not too much out of line. Brennemann¹ states that any child that does not show some objection to regimentation is a "dud."

Our motive, then, should be to advise the parents as to the vagaries of infancy and childhood. In our attempt to get them house-broken and to fit into modern society, we should allow them freedom to the extent that they are not a burden. In our attempt at a modified regimentation, we must be firm but gentle. A child has a remarkable ability to detect fairness. If we are fair in our demands, they will respond. They may try to get out of bounds, but if urged gently and firmly back into line they will submit without ill feeling. They respect honest discipline.

A newborn baby is sensitive to his environment. He is very likely to cry his first night at home, not because he is hungry or sick, but because the parents are jittery and are wondering if they can successfully shoulder their new responsibility. At his slightest movement, they rush to see if he is covered properly or if he is smothering. This anxiety on their part is reflected in the baby. You may ask how I can be sure of this. Over the years I have developed the policy of waiting for at least a half an hour when I have been called to the home to see a crying newborn. Invariably, when I arrive the baby is asleep and the parents are much provoked and insist that this is the first time that the baby has gone to sleep so easily. After a careful examination to be sure that there is nothing wrong, I explain that the baby has responded to the peace that settled over them after calling the doctor. Invariably, they reply

2. Davis, C.: Am. J. Dis. Child. 36, 651, 1928.

that they had felt a sense of relief as soon as they knew that I was coming to help them out, and that the baby had gone to sleep almost immediately. This has happened too often to be a mere coincidence.

If the brain can put out enough electricity to register on the electroencephalogram, it seems easy to understand that emotionally disturbed parents can put out enough electrical waves to upset the baby. Therefore, we should do our utmost to promote a calm atmosphere in the house and convince the parents that every whimper and movement on the part of the baby is not indicative of distress.

I advise my young mothers to let the baby belch after feeding, change his diaper, and place him in bed wide-awake. Some state that if the baby goes to sleep while feeding, she would not dare to awaken him, but would put him down and slip out of the room. This is courting trouble. Just as the baby that is rocked to sleep requires rocking when he wakes up, so the baby that is fed to sleep demands to be fed when he awakens. He is not hungry but wants to return to the satisfactory situation he was enjoying when he went to sleep. Personally, I think he would be a little stupid if he did not expect this and it is my opinion that the average baby is far from being stupid. In fact, if we could understand them as well as they understand us, our problems would be minimal.

In Case No. 3, mentioned above, it was my opinion that the baby was fretting because the mother was concerned about many imagined irregularities. When she realized that the baby was gaining satisfactorily and was not constipated, she immediately reported a much better baby. It is sometimes difficult to get mothers to understand that a baby may have four to six soft stools daily or one soft stool every other day and still be normal. After the first few minutes, regurgitated milk should be sour. Final realization of the facts, in my experience, has had a calming influence on many households.

Case No. 1 was the second of two boys. The mother had been sterilized at his birth. The entire family, but particularly the maternal grandmother, had been much disturbed because he was not a girl and that there could never be a daughter in the family. The grandmother made much over the

older boy and ignored the younger one. The mother admitted that everyone showed partiality to the older child. Was not Brennemann correct when he suggested that this child would be a "dud" if he did not set fire to his bed?

Case No. 2 was an only child. He felt secure at home but conflicts occurred when he started to school. However, he finally mastered the situation in the first grade and liked his teacher. But when he had to go into the second grade, again he was without anchor. This teacher was somewhat impatient with him, so he would slip away and back to his first teacher. While he read well for his mother, he was uncertain at school. When he heard the teacher tell his mother what a poor reader he was and that he would not pass unless he did better, he immediately performed even worse for her, he lost his appetite and became very fretful and irritable.

I believe the realization of the underlying factors in these cases should dictate the solution, and so it is with many of our problems.

In conclusion, we should realize that a baby is an individual and should have certain privileges. He is neither a doll nor a plaything, but should be considered a young citizen entrusted to our care for proper indoctrination. Do not expect perfection of him. As he develops, let him be a child and not a young grown-up. Recently, I told a mother in the presence of her four year old that I was giving him a tonic. Misunderstanding the word, he said, "Will I go 'shoosh' when I take the atomic bomb?" Was he living the life of a child?

A bantam hen lays an egg that produces a bantam chicken and not a Rhode Island Red. The American race is not a pure breed but a mixture of many races. A couple may produce a large, then a small child. Both may be perfectly normal but with marked deviation from the average physique.

Again I must insist on a certain amount of regimentation and firmness, but with gentleness. Never make a command to the child unless you are ready to see that it is carried out. Indecision on your part is fatal. Limit your dents to three situations—situations that are dangerous to the child, to others, or to property. The infant and child

are more interested in the green light than the amber or the red.

If I have convinced you that I am correct in this presentation, do I expect you to say to the young mother, "You are unstable and emotionally upset. Snap out of it and your baby will be perfect?" Certainly not. You must be naive and sympathetic. After assuring her that the baby is physically all right and explaining to her the normal physiologic and physical variations from the average, some concrete change in routine will do much to satisfy her. Sometimes the mere change in brands of evaporated milk, without change in proportions, will result in a perfect baby, additional evidence that the baby's trouble had not been real. A change from liquid to dried milk or vice

versa will frequently give excellent results, but do something. This will prove to the mother that you are genuinely interested in cooperating. As the baby becomes older, discuss the problems sympathetically and you will be rewarded.

And finally keep in mind that the baby and child must be allowed to develop an individuality and a reasonable amount of independence. There is no more reason to expect all children to eat, grow, think and behave the same than it would be to expect you to be a carbon copy of your next door neighbor. The realization of this fact will enable you to replace immaturity with maturity and should go a long way in preventing juvenile delinquency.

THE USE OF THE PLAIN FILM OF THE ABDOMEN

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The use of the plain film of the abdomen has attained a prominent position in roentgen diagnosis. Any change that may be seen or indirectly detected in the general region from the diaphragm to the femoral necks is included within the scope of the plain film. The things that may be recognized are innumerable; in fact too numerous to be mentioned in this paper. One observer made a conservative estimate that over a hundred different conditions have been recognized. Some of the more common things and also some of the overlooked abnormalities will be mentioned, along with representative radiographs. All fields of medicine make use of this type of examination. It should be of interest to all as a diagnostic aid. If this type of film does not help directly, it may be of aid by indicating the direction in which to seek a diagnosis, either through additional radiographic examination or other procedures.

The term "plain film of the abdomen" is used purposely. It means a radiograph taken with the patient supine, prone or erect. This term may be interchanged with the designations "preliminary film" or "scout film," but the term "flat plate" should be avoided.

The purpose of the examination is to

study the parts visualized as they are without any extrinsic change of relationship. This type of film is prerequisite to any abdominal examination which requires a contrast medium. Let it be recalled that the x-ray film produced is a shadowgraph. By that is meant that the image obtained is by virtue of the differences in density of the tissues through which the x-ray beam passes. Thus, bone, which is dense, will cast a light shadow, while air will cast a dark shadow. Between these two extremes are varying densities of the soft tissues.

As an aid to interpretation and for a better quality of film, proper preparation of the patient is needed. The use of a cathartic, cleansing enema, Wagensteen or rectal tube is efficacious in removing feces or air which cast undesirable shadows. Occasionally, the use of pitressin is an additional aid in removing intestinal gas. These measures should be used where indicated. In addition, some pertinent notes from the history of the patient should accompany the request as an aid to the roentgenologist.

The viscera that are seen in outline are the liver, spleen, kidneys and, occasionally, the urinary bladder when full. The psoas lines and gluteal outlines can be discerned. Of course, certain bone structures come under scrutiny. Air is usually present in the stomach. Gas and intestinal content render visible the small and large bowel.

Congenital anomalies, as eventration of the diaphragm, herniations of abdominal viscera through the diaphragm into the thorax, and "horse-shoe" kidney, are just a few of the conditions which may be recognized.



Fig. I. Female, aged 29, with incipient right renal "staghorn" calculus, who now has a dual pregnancy. She has progressed to the fifth month, with one fetus lodged in the left pelvis and the second located over the ala of the right sacrum.

Calcifications which are commonly seen on a plain film and to which no particular significance is attached are calcified costal cartilages, phleboliths, mesenteric nodes, splenic nodules and Ghon tubercles in the lower lungs. The abdominal aorta and its various tributaries may present calcifications in their walls. Among the abdominal calcifications which are of pathological significance are concretions that are visible because of their calcium content, such as calculi of the biliary and urinary tracts and pancreas. In addition, calcification is frequently found in renal tuberculosis, dermoids, teratomata, fibroids, gallbladder, ovarian tumors and echinococcal cysts, and in the suprarenals in Addison's disease. Soft tissue masses commonly seen are enlarged kidneys, spleen or liver. An enlarged spleen is seen in leukemia, Hodgkin's disease and lymphosarcoma. Enlargement of the liver, associated with a

general haze over the abdomen due to fluid, might suggest cirrhosis. Ovarian tumors, cysts or malignant tumors may be detected only by their displacement of surrounding parts. A solitary renal cyst can be determined as a rounded mass, usually at the lower pole of one kidney, in comparison to the opposite renal outline. By adjacent intestinal displacement, a mesenteric cyst can be detected as a globular, semi-dense tumor mass. Similarly, the primary outline of a dilated gallbladder can be visualized. Radiographs of excellent contrast are needed to identify the hydrops in relationship to the liver and superior right renal border.

The presence of air is of diagnostic aid. This is true for free air under the diaphragm from a ruptured hollow viscus. Air in the kidney region may be due to a perinephric abscess. Localized collections of fluid levels suggest an intraperitoneal abscess. Large air-containing loops of large



Fig. II. Negress, aged 18, with mechanical small bowel obstruction. This is the second plain film of the abdomen obtained eighteen hours after the first film. It reveals an increased caliber of the dilated small bowel loops with an increased spacing between the individual loops. A deflation tube is present in the stomach. The mercury bag was ruptured, with diffusion of the metal in the intestinal tract. At operation both recent and old inflammatory bands were found in the false pelvis incident to a recurrent pelvic inflammatory reaction involving two segments of ileum.

bowel are seen in megacolon. Intestinal ileus may be readily diagnosed from plain films. In fact, mechanical ileus may be differentiated from the adynamic form. In the former, dilated loops of intestine are seen proximal to the obstructive site when the patient is examined in the supine position. In the latter, there would be a generalized intestinal dilatation.

Foreign bodies are commonly observed. They may be lead shot, or objects that were swallowed, or opaque pills. The streaky lines of bismuth are visible in the buttocks. Occasionally, an isolated opacity is noted in the lower mid-right abdomen. If this is coupled with a localized small bowel ileus, the impression of fecolith with acute appendicitis should be substantiated at exploration.

Bony pathology may frequently be demonstrated. Spondylolisthesis, scoliosis, spina bifida and lumbarization of the first sacral segment represent but a few of the anomalous conditions. Paravertebral abscess and aortic aneurysm may be distinguished. Bone tumors, whether benign or malignant, primary or secondary, are frequently seen.



Fig. III. Female, aged 52. A long standing epigastric fulness with bloating was noted by the patient. There is a large soft tissue mass in the upper abdomen that displaces the stomach and colon. Scattered calcific zones are seen at its perimeter. Diagnosis—echinococcus cyst.

In the field of obstetrics, gross pelvic abnormalities are detectable. Placental sites or fetal size may be estimated from the plain film of the pregnant woman. Also in dubious cases multiple pregnancies are readily diagnosed. Pathologic changes of the fetus may be recognized, as in the separation of the cranial bones with hydrocephalus or the overlapping in fetal death.



Fig. IV. Male, aged 40. The erect P. A. chest examination was negative. The conventional scout film initially showed a moderate gastrectasis plus rugal edema. There was a suggestion of a faint "droplet-like" effect of collections of air beneath the inferior medial liver margin. This right lateral decubitus examination was obtained four hours later which reveals this change to better advantage. The impression is gained that the duodenal bulb is deformed. The impression of a small duodenal perforation was verified at operation.

From the standpoint of the intestinal tract, gastrectasis is readily noted. The finding of a hazy appearance of the hepatic junction to the right psoas line, with faint, droplet-like collections of air, indicates a low grade duodenal ulcer perforation. The relatively dilated, depressed transverse colon is of diagnostic significance. This, in association with a localized duodenal or jejunal ileus, indicates pancreatitis. If the gastric air bubble is slightly laterally deviated, then the pancreatic edema may be associated with lesser omental bursal fluid. Retroperitoneal masses are apt to distort the psoas lines or deviate the kidney from

its usual position. Basilar pleuro-pulmonary densities frequently indicate intra-abdominal, inflammatory disease to be present.

CONCLUSION

A scant outline of some of the intra-abdominal conditions that may be encountered and identified on a plain film of the abdomen has been presented. It can yield more information radiologically than any other single roentgen examination. This general use is brought to the attention of all in the practice of medicine as a diagnostic aid.

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THE HEADACHE OF INTRACRANIAL ANEURYSM

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The question is often asked by those who deal with a great many headaches, "How can I tell which ones are urgent?" Perhaps no cause of headache more urgently requires diagnosis and treatment than that of intracranial aneurysm. The mortality of the first attack of subarachnoid hemorrhage is so high that it would be very desirable if we could establish methods of detecting these dangerous anomalies before the hemorrhage occurs. Premonitory headache does not appear in all cases of intracranial aneurysm. In many, extreme head pain and immediate coma are the first indications that an aneurysm may exist. Wolf, Goodell, and Wolff¹ discovered in their series that 26% had periodic recurrent headache for many years. Hamby² found that sudden pain in or about the eyes was probably the most prominent symptom and the onset is very sudden. Wechsler, Gross and Cohen³ found that headache was the first symptom of intracranial aneurysm in ten of seventeen cases, and Hamby² found head pain the initial symptom in 69 of 130 patients who developed subarachnoid hemorrhage.

Since headache is such a prominent and frequent symptom long before subarachnoid hemorrhage occurs, this study was undertaken to see whether there were any outstanding characteristics which might guide the practitioner to the early detection of the disease. We have assembled in Schedule I nineteen of our own cases in which the headache was more or less completely described, and four cases from the literature. The headache of intracranial aneurysm falls naturally into two phases, the early and the late. The early headache, or head pain, is probably due to stretching of the pain-sensitive structures at the base of the skull. The later pain is more often associated with bleeding from the aneurysm and a chemical meningitis. The schedule, therefore, has been so arranged as to describe the beginnings of the headache, and how it developed. The early associated signs are compared to signs associated with the later development of the headache, as subarachnoid hemorrhage became imminent or actually occurred. Moench⁴ states that some aneurysms produce a periodic headache that is easily confused with migraine. Hamby² also points to headache of migrainous character. Wolff⁵ feels, however, that the migraine is probably independent of the presence or ab-

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INTRACRANIAL ANEURYSM HEADACHE

J.M.A. Alabama
February 1955

SCHEDULE NO. 1

HEADACHE OF INTRACRANIAL ANEURYSM

NAME	POSITION OF HEADACHE		EARLY ASSO. SIGNS	DURATION	REMISS	LATE ASSO. SIGNS	DIFF.	CHARACTER AGGRAVATED
	BEGAN	DEVELOPED						
Robertson Case 2 Age 47	Occip.	Frontal	Fatigue	3 weeks	Intermittent	Terrific headache and stiff neck Conv. and unc.		
Robertson Case 5 Age 28	Frontal to suboccip.		Head felt pulled backward Irritability	10 years occas.	Yes	Disorientation		
Apers Case P. 421	L. side nose	L. frontal occiput	Nausca and loss of appetite	1 week	No	3rd N. palsy		
Case P. 422	L. side above and in eye to l. cheek	L. occiput rad. to forehead		4 years	Yes	3rd N. palsy disappearing in 8 days		
AUTHOR'S CASES								
R. R. Age 49	R. and front	Occipital	No neck stiffness Nausea	"All life" Severe 6 days	Yes			
C. F. G. Age 42	Occip. and upper neck	Same	Nausea Stiffness of neck	5 days	No			
I. F. D. Age 36	Behind rt. eye	Generalized	Drowsy	9 days	No			
J. C. Age 65	Headsue fol- lowing head inj.					3rd N. palsy Weakness r. hand		
E. S. Age 44						Hemiplegia Double vision		
C. S. Age 64	Headache of sudden onset behind the eye	Same	Momentarily unconscious	3 months	No	3rd N. palsy		

INTRACRANIAL ANEURYSM HEADACHE

L. A. M. Age 52	Pains in eye foll. head injury	General headache	None	3 months	Yes	Coma followed by mental dullness
M. S. Age 31	Foll. head injury	Steadily worse for 6 mos.	Pulsating noise behind l. eye 6 mos.	4 years	Yes	
F. B. Age 39	"Nut cracker" pain in head, occipital	Generalized	"Light headed" Nausea and vomiting. Photophobia	3 days	No	Changes of disposition
E. W. Age 52	Behind l. eye	Same position but steadily worse	Ptosis of l. eyelid	5 years	Yes	Moving
V. L. Age 59	L. occip. Some severe headache since childhood	Both occip. to parietal and upper cervical. Finally also frontal	Nausea Photophobia	3 days	No	Double vision. Feeling of heat in face.
C. W. B. Age 61	Occip. and bitemp.	Same	Loss of consciousness for several minutes	6 days	No	Stiffness of neck
H. T. S. Age 57	Frontal and retro-orbital right	Nausea	Nausea	2 months	No	Nausea
C. C. A. Age 47	Supraorbital	Supraorbital	3rd N. paralysis Poor memory	7 years	Yes	Convulsion
S. G. C. M. Age 35	Rt. fr. and l. occip.	More severe. Required narcotics. Became retro-orbital	Asso. with end of menses	20 years	Yes	Spread of pain to infraorbital and temporal areas
E. M. A. Age 25	Gen.	Rt. retrobulbar and occip.	Dizzy spells	6 years	Yes	3rd N. palsy
F. T. H. Age 38	Gen.	Suddenly more severe.	None noted	4 weeks	Yes	Later, bilat. 6N
D. F. Age 69	Headache frontal Gradually and pain in eyes more severe	Generalized		4 months	No	Confusion
S. L. L. Age 34	Sudden headache and fall to floor		Photophobia Irritability	5 days	No	Photophobia
						Blurred vision
						Diplopia 2 mos.
						3rd N. palsy
						Left facial paresis

sence of aneurysm. Alpers⁶ describes the headache of intracranial aneurysm as follows: "In most instances the history concerns head pain extending over a varying period of time, followed after a varying interval by evidence of cranial nerve palsies. The headache may be present for several years or only a few months. Unilateral, intermittent, and of considerable severity, it is often felt behind or in the eye." Ryan,⁷ on the other hand, subscribes to headache of aneurysm as occurring in the occipital area, the temporal area, or the frontal area. Hamby² also points to varying degrees of paralysis of the third nerve, which may develop at any time after the onset of pain. Friedman⁸ remarks that diplopia, when present, may clear shortly, while the pain may persist thereafter for many weeks. The findings of this study tended to confirm the variability of the symptoms.

It is to be noted by Schedule I, in our cases and those in the literature, occipital pain was fully as frequent as that behind the eye. This was true, both of the early premonitory headache and that which presaged rupture of the aneurysm. The original headache, which may have a duration of anywhere from three days to twenty years, was seldom associated with cranial nerve palsies, but was often complicated by slight mental changes, including periods of momentary unconsciousness and deviations of personality, by photophobia and by dizzy spells. Cranial nerve palsies tended to come on late and were either a prediction of impending rupture or an evidence of rupture itself. The course of the disease often, but not always, eventuated in coma or hemiparesis or other evidences of severe generalized central nervous system involvement. Wolff,⁵ for example, found that slightly less than one-half his patients did not have vomiting, drowsiness, neck rigidity, and loss of consciousness.

The significant fact in comparing the early headache of intracranial aneurysm with later headache which was so often premonitory of disaster, was the change in position, frequency, or character of the pain.

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Frankel⁹ points to this change in the nature of the headache and Hamby² summarizes it very well when he indicates that the physician should be on the alert when a migrainous headache of many months or years standing changes character. If one waits for the onset of cranial nerve palsies the time may have become short in which a good therapeutic result may be obtained.

Along the way there may be certain pitfalls in diagnosis which should be pointed out. Early in the course of headache, the pain may be relieved by ergotamine just as in migraine, and Moench⁴ points out that the headache of intracranial aneurysm may be reproduced by histamine administration. The physician should therefore take care not to put too much reliance on therapeutic tests.



Fig. 1. Berry aneurysm of the internal carotid artery.

The diagnosis can be made by angiography in most cases. Figure I depicts a typical aneurysm of the intracranial portion of the internal carotid artery. Figure II shows an arteriovenous aneurysm between the internal carotid artery and the cavernous sinus. Occasionally, a blood clot will so block the neck of an aneurysm that the dye will not enter, and the angiogram will fail to delineate the anomaly. While there are reports in the literature of instances of unfortunate accidents following angiography, as usually done, with 35% Diodrast, a

9. Frankel, Kalman: Relation of Migraine to Cerebral Aneurysm, Arch. Neurol. & Psychiat. 63: 195, February 1950.

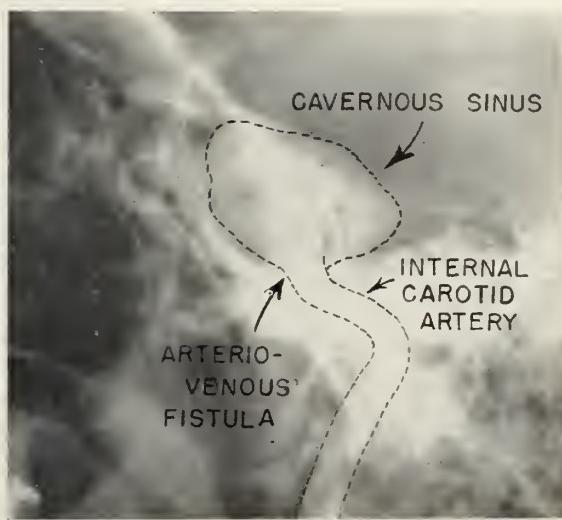


Fig. 2. Arteriovenous aneurysm.

few simple precautions (to be published later) minimize the danger. VerBruggen¹⁰ has reported 150 angiograms in which no untoward effects were encountered. The method is invaluable, especially in those cases where the classical signs of subarachnoid hemorrhage are wanting.

DISCUSSION

If one were to advise how best to distinguish the headache of intracranial aneurysm, his counsel should probably best be as follows: (1) Be suspicious of any migraine which suddenly changes position, character, or intensity. (2) Follow through on any migraine starting past age forty. (3) Consider any "ophthalmoplegic" migraine an aneurysm until otherwise ruled out. One cannot eliminate aneurysm because the headache under consideration is occipital in location, or because it has once yielded to ergotamine or histamine desensitization. Photophobia, for some unknown reason, occurs with greater frequency than can be ascribed to happenstance. The diagnosis must constantly be kept in mind, and angiogram, carefully performed, should be a more frequently employed method of diagnosis.

SUMMARY

The headache of intracranial aneurysm, in a large percentage of cases, may be associated with distinguishable premonitory symptoms described above. Even when subarachnoid hemorrhage occurs, the classical symptoms and signs are not always present. Angiography can often be employed to establish an early diagnosis.

10. VerBruggen, Adrien: Complications of Iodopyracet (Diodrast) Arteriography, *Arch. Neurol. & Psychiat.* 71: 518, April 1954.

Allergy in Infancy—Since the introduction of antibiotics there has been an enormous use of these drugs not only for infectious diseases but likewise for many types of allergic disorders, especially those of the respiratory tract. Not only does such procedure lead to more and more sensitivity to the antibiotic itself but antibiotics as a whole have not been shown to be particularly effective against definite virus infections, and indiscriminate use of them leads to decrease in their effectiveness against certain bacteria. In respiratory allergic disorders antihistamines and epinephrine play a big part. The early use of such remedies may often abort or ameliorate respiratory disturbances. Epinephrine by hypodermic in repeated small doses, as 2 to 4 minims, is far better in childhood than a single larger amount. Small localized areas of pulmonary consolidation beneath mucus plugs, when treated early, will often respond dramatically to epinephrine alone, and the pneumonia rapidly clears up. When small doses of epinephrine fail to give relief, aminophylline suppositories have proved to be satisfactory and most efficacious.

Unfortunately, the element of claustrophobia enters the picture when some children require oxygen therapy. There seems to be more and more question as to the value of oxygen therapy in asthma. Whether or not it is efficacious, per se, it does insure an air-conditioned area which is most helpful for inhalant sensitivity. The new Alevaire for aerosol inhalation so far seems to be an excellent product, but, unfortunately, the apparatus necessary is expensive and mechanically difficult to set up.

The use of antigens for hyposensitization for inhalant offenders varies widely in different hands and in different localities. Some allergists, for example, treat so-called fall hay fever problems with ragweed alone, or grass-sensitive patients with timothy alone. It is my belief that better results are obtained when multiple local pollen offenders are included in the antigen along with other multiple inhalants as molds and epidermals. Likewise, there are advocates of both high and low dose pollens or other inhalant antigens. To me the optimum dosage is based on that dose which gives the greatest protection with the least potent antigen and the smallest quantity. In my experience, I have seen many variously sensitive persons who cannot tolerate an antigen stronger than 1 to 50,000,000 dilution without getting some type of mild reaction.

While there is no agreement as to seasonal or perennial treatment, it is my routine to use the perennial method. In definite seasonal cases, once the tolerance dose is established, I prefer weekly injections during the season, and between seasons, injections as far apart as three weeks if the patient can be symptom-free for that period of time. While treating for pollens in such cases, I include other inhalants to which there is positive reaction which are relevant to the area in which the patient lives. The other inhalants are such protein extracts as hairs, feathers, dust, and molds. I also advise avoidance of known offending foods.

Treatment has to be individualized for the child in question rather than for the disease or disorder the child has.—McGEE, *J. Florida M. A.*, January '55.

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J. Paul Jones Camden

John L. Branch Montgomery

J. O. Finney Gadsden

E. G. Givhan, Jr. Birmingham

J. D. Perdue Mobile

STATE HEALTH OFFICER

D. G. Gill Montgomery

DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegate—J. Paul Jones Camden

Alternate—D. G. Gill Montgomery
(Term: January 1, 1954-December 31, 1955)

Delegate—E. Bryce Robinson, Jr. Fairfield

Alternate—B. W. McNease Fayette
(Term: January 1, 1955-December 31, 1956)

THE MONTH IN WASHINGTON

With the 84th Congress well into its first session, all indications point to an active year in medical legislation. Many of the bills will founder somewhere along the way, but as of now an imposing number are lined up awaiting consideration in Senate and House.

Confirmation that medical problems rank high in the administration's work schedule for Congress came early in January in President Eisenhower's State of the Union Message. This is the address, delivered in person before a joint meeting of Senate and House, in which the President annually outlines in general terms the condition of the country and the new legislation he believes should be enacted.

This message highlighted the President's objectives but did not tell in specific terms how he expected to reach them. The details came later in five additional messages to Congress, including one on health on January 24. The President wants Congress to take action on the following health and medical items:

1. A federal health reinsurance service. This idea was rejected by the House last year, but neither Mrs. Hobby nor Mr. Eisenhower has given up hope for it.
2. A plan to insure better and more uniform medical care for public assistance recipients through larger U. S. appropriations and more administrative controls.
3. Federal assistance in construction of health facilities and in providing more trained health personnel (other than physicians).
4. A new federal program to combat mental illness and return more mental patients to useful lives outside institutions.
5. An improved federal program for aiding crippled children and for maternal and child health.
6. Strengthening of the pure food and drug laws to give greater consumer protection.
7. More attention to "the increasingly serious pollution of our rivers and streams and the growing problem of air pollution."
8. An expanded program for the medical care of military dependents.
9. A voluntary health insurance program for federal civilian employees with U. S.

contributions and payroll deductions authorized for the employees.

So much for what the Republican President hopes to get through Congress. It is too early to say how much of this program will have the support of the Congress, now under Democratic control. It is clear, however, that many leading Democrats want to enact some legislation the President did not include in his program. In the early weeks of the session they introduced scores of bills to carry out their ideas.

Federal aid to medical education is prominent in the plans of many of the Democrats, and some of the Republicans. The bills cover a wide range, some restricted to construction grants but others offering help in meeting operating expenses and incentives to increase the number of students. Other bills offer federal grants to voluntary health plans to subsidize coverage of the indigent, the "medically indigent," the unemployed and the aged. Because the administration has declared itself opposed to subsidies, it is unlikely that any measures of this type will win the support of Mrs. Hobby's department and the White House.

Members on both sides of the aisle also are proposing greater emphasis on research seeking the causes and cures of such diseases as cancer, heart disease, mental illness and arthritis. Some of these bills fit in with the Eisenhower program and philosophy, and are likely to have White House support at the hearings.

This tendency to stimulate more basic medical research, both at the federal level and through state grants, may be an important factor when Congress gets around to passing the appropriation bills for the various Institutes of Health, the research arm of the U. S. Public Health Service.

Several years ago a Democratic Congress took a serious interest in a bill for federal aid to local public health departments. Some of the influential Democrats have revived this idea and are working for its passage this session. As expected the old Truman-Ewing plan for national compulsory health insurance again is before Congress. The first one to introduce a bill along these lines was Rep. John D. Dingell, a sponsor of the original plan. Later others joined with him in backing the idea, but up to now the open support for it is not extensive on Capitol Hill.

JAMES SOMERVILLE McLESTER

AWARD PRESENTATION

by

THOMAS J. WINN

President of the J. B. Roerig Company,
Division of Chas. Pfizer & Co., Inc.,
and Vice President of Pfizer

At Honors Night Dinner, Association of Military Surgeons of the United States, Statler Hotel, Washington, D. C., Wednesday evening, December 1, 1954.

It is a real pleasure for me to participate this year in your Honors Night Ceremonies and to present the first McLester Award for outstanding accomplishment in nutrition and dietetics.

Nutrition is accepted today as a most important environmental factor in human health. Research and clinical studies have established its role in the prevention and therapy of many diseases.

Modern nutritional knowledge now plays a part in every medical and surgical specialty, as well as in general practice. It is truly another important pathway to the future of medicine.

Nutrition is no longer the empiric science it once was. We have learned many new and important facts about enzymes, vitamins, minerals and about the basic constituents of food and the clinical results of their use.

But there is still much to be learned. And we, of the Roerig Company and Pfizer, hope that the annual McLester Award, which is being given for the first time tonight, will serve in some measure to stimulate advancement of the science of nutrition and dietetics.

Your Committee on Awards has decided that eligibility for this award requires only that the person selected should be associated with a Federal medical service, and that the recipient should be selected in recognition of past outstanding accomplishment in the field of nutrition and dietetics.

It is especially gratifying to know that this award has been named in honor of a most illustrious physician—the late Colonel James Somerville McLester, whose contributions to the science of clinical nutrition and metabolism are well known to all of you in the medical profession.

I understand that Colonel McLester's son, Dr. James B. McLester, Professor of Clinical Medicine at the Medical College of Ala-

bama, is with us tonight to witness the presentation of this new award.

Colonel McLester was born in Tuscaloosa, Alabama, January 25, 1877 and died in Birmingham, Alabama, February 8, 1954.

He obtained his Bachelor of Arts degree at the University of Alabama in 1896, and was granted his degree in medicine from the University of Virginia in 1899.

After three years of postgraduate studies abroad, he became Professor of Pathology, and later Professor of Medicine, at the Birmingham Medical College. He also practiced internal medicine in Birmingham.

In World War I he was commissioned a Major in the U. S. Army Medical Corps, and early in 1918 was promoted to Lieutenant Colonel, serving as a Medical Consultant to the Chief Surgeon of the A. E. F. and Commanding Officer of Evacuation Hospital Number 20.

On his return from military service in 1919 Colonel McLester resumed practice in Birmingham and became Professor of Medicine at the University of Alabama School of Medical Sciences. At the time of his death, he held the title of Professor of Medicine, Emeritus.

He was very active in local and national medical association affairs, serving in 1910 as President of the Jefferson County (Alabama) Medical Society; in 1920 as President of the Medical Association of the State of Alabama; and in 1934 as 88th President of the American Medical Association.

Since 1933 he was a member of the Council on Foods and Nutrition of the A. M. A. and was its Chairman from 1940 to 1952.

During World War II he was Chairman of the Subcommittee on Nutrition of the National Research Council, concerned with the feeding of the Armed Forces. He was also a member of the Food and Nutrition Board of this Council.

Colonel McLester was author of two textbooks on nutrition, one of which is now in its sixth edition and, I believe, translated into Spanish.

In 1953 the Board of Trustees of the American Medical Association awarded Colonel McLester the Joseph Goldberger Award for outstanding contributions in the field of clinical nutrition. He was cited for

his outstanding role in translating the results of nutrition research into human values, and in the integration of nutrition into the teaching of all phases of medicine.

In his 77 years Colonel McLester lived a life completely devoted to the advancement of medicine. Everyone in our organization, and I am sure all of you, are pleased to know that this annual nutrition and dietetics award will serve to perpetuate his name.

It gives me great pleasure to announce that the recipient of the first McLester Award is Miss Grace Bulman, Director, Dietetic Service, of the Veterans Administration.

It is fitting that the first recipient of this award is one who has been actively engaged in the field of applied nutrition for many years.

Miss Bulman, who has served with great distinction, began her career as a hospital dietitian with the American Expeditionary Forces in France in 1918. Through her professional enthusiasm and competence she has risen to one of the highest positions in her field. Today, she is responsible for directing the work of approximately 900 graduate dietitians and 15,000 other dietetic personnel in 172 Veterans Administration Hospitals and 30 Regional Offices in the United States and Puerto Rico.

She has quietly encouraged and inspired others in her field to great accomplishment and has effectively pursued her own high personal objective—the nutritional betterment of hundreds of thousands of Army, Navy, Marine, and Coast Guard veterans who are patients in the Veterans Administration Hospitals.

In 1948 Miss Bulman received the highest honor of the American Dietetic Association, The Marjorie Hulsizer Copher Award for outstanding work in the field of dietetics, and has just completed her term of office as president of this national organization. She is a member of the Board of Directors of the National Health Council, and is also Veterans Administration liaison representative to the Food and Nutrition Board of the National Research Council.

Miss Bulman, on behalf of the Awards Committee of the Association of Military Surgeons, and the J. B. Roerig Company, a Division of Chas. Pfizer & Company, I am

pleased to present to you this honorarium of \$500 and this plaque inscribed as follows:

THE
MCLESTER AWARD

to honor the memory of

JAMES SOMERVILLE McLESTER
M. D., LL.D., COLONEL, MC, USAR
is presented through the courtesy of
J. B. Roerig and Company
Div. Chas. Pfizer & Co., Inc.
by the
Association of Military Surgeons
of the United States
to
GRACE BULMAN
for distinguished service in the field
of applied Nutrition and Dietetics

Awarded at the
61st Annual Convention
in the city of
Washington, D. C.
December 1, 1954

AMERICAN ACADEMY OF
OBSTETRICS AND GYNECOLOGY

DISTRICT VII MEETING

The annual interim meeting of District VII of the American Academy of Obstetrics and Gynecology will be held at the Tutwiler Hotel, Birmingham, Alabama, March 18-19.

Obstetricians and gynecologists from the following states will be in attendance: Alabama, Arkansas, Louisiana, Mississippi, Missouri, Oklahoma, Tennessee and Texas. All members and associate members of the Alabama Association of Obstetrics and Gynecology are invited to attend.

One feature of the meeting will be an historical exhibit on the life of Doctor J. Marion Sims, prepared by the Library staff of the Medical College of Alabama.

ANNUAL MEETING
OF THE ASSOCIATION
WHITLEY HOTEL
MONTGOMERY
APRIL 21, 22, 23

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

THE YEAR IN RETROSPECT

ADDRESS OF THE RETIRING PRESIDENT
OF THE JEFFERSON COUNTY MEDICAL SOCIETY

DECEMBER 6, 1954

H. E. SIMON, M. D.

Tonight it is my privilege to discuss with you some of the problems which confront the Jefferson County Medical Society, to tell you what is being done about them, and the need for further action. I will be as brief as possible.

The condition of our public relations is probably our most urgent problem. It is apparent to all that public opinion of the medical profession has deteriorated. We are told so by the politicians, by various social and economic groups; the unions, and commentators, and by way of radio and press. Our friends (and we still have some) and mem-

bers of the medical profession itself are found to agree. So it must be so. It behooves us, therefore, to consider how these criticisms affect our own Jefferson County Medical Society.

The extent of public feeling against physicians in this community is evidenced by the experience of one nightly radio program which broadcasts comments and questions phoned in by listeners. Criticisms of doctors and medical practices occupied four successive programs. It was acrimonious and continued in spite of efforts of the moderator to terminate it. Many statements made by participants were totally untrue, but it was a startling indication of the complaints the public has against the medical profession, here in Birmingham.

We are told we operate too much and needlessly; charge excessively, refuse to make house calls, treat patients unnecessar-

ily, make needless examinations, or we don't examine patients sufficiently, fail to explain diagnoses and treatment to our patients, don't tell the truth about their diseases, drive Cadillacs, protect other doctors too much, fail to eliminate the undesirable members of the profession, split fees, specialize excessively, support mass medication, and do ghost surgery. In general we don't practice medicine to suit the critics. Much of the criticism is false and unjustified. The medical profession still towers as a group of unselfish, dedicated individuals, the vast majority of whose members place the welfare of the patient first and their own comfort, convenience and personal gain last. *Of this the public needs to be reminded.*

Only partially are we to blame for the present condition of public opinion regarding our profession. Important extrinsic factors are political and social groups who criticise the medical profession to further their own ambitions or philosophies.

One of the major complaints of our critics is that doctors overcharge. This is a practice indulged in by a relatively small number of the medical profession. They contend it maintains the high standard of medical service and the dignity of the profession. It does neither. Only too often it expresses their desire to achieve an excessive income, or a large income with a minimum of effort. It is a practice not condoned by the majority of physicians and those who do indulge in it do not enjoy the favor of the medical profession as a whole. A majority of the complaints reviewed by our Grievance Committee relate to the belief of the patient that he has been overcharged. Frequently he is not but it behooves us individually to reexamine our fee schedule in comparison with those of other physicians in our community and reassure ourselves of its correctness in relation to services rendered, considering the ability of the individual to pay. A few minutes given to the explanation of a fee before or after a charge is made would usually make it acceptable to the patient and do much for good public relations. Some means of interchange of information regarding fees might be useful.

There have been denunciations in the public press of the evils of unnecessary surgery, indiscriminate removal of tissue, or the performance of surgery by physicians who have had insufficient surgical training.

Such practices cannot be condemned too strongly where they exist. They must be stopped. They should be vigorously regulated here through our county medical societies, in our hospitals, through active and vigilant tissue committees, and with strict regulation of surgical privileges. Unfortunately, it is possible in Birmingham for a physician, just through his intern training, to perform major surgery because, in some of our hospitals, tissue and surgical privileges committees still exert inadequate control. These safeguards should be strengthened and the public informed of their existence.

Heretofore, our Constitution has not provided concise and practical methods of dealing with members who fail to abide by our ethical standards. At this time the Society has proposed, and the Board of Censors is considering, amendments which clearly outline procedures to deal with these problems. It is hoped that these will be adopted and that, in the future, we will demand stricter conformity with our standards.

The physicians' exchange in Birmingham, although not directly a part of the Society, provides a valuable liaison between the public and the medical profession. Public relations have been improved greatly through its emergency and night call service and the dissemination of information to the public.

A positive, coordinated program of action should be taken to improve our public relations. Such a program could include some or all of the following:

(1) Continued cooperation with the press. Our press relations have greatly improved through the efforts of our Press Committee. We fail to give reporters material in accordance with our press agreement and occasionally fail to obtain press committee clearance. Objections to personal publicity of participants in any medical education program have been a serious problem. They will always be a problem but will be minimized if handled objectively and viewed with tolerance. Avoid programs that provide personal and professional publicity for individuals. A speakers' bureau to minimize this problem has been established by some societies with success.

(2) Initiate a program to inform the public about the existence and functions of our Grievance Committee. This is one of our

most important and best-handled committees. It was established to improve public relations, but our local public is largely in ignorance of its existence and its usefulness is thereby limited. Non-professional members, such as an attorney, a hospital administrator or an industrialist, might be added. Similarly, the public could be informed of the existence and function of tissue committees, the control of surgical privileges in our hospitals, the function of hospital staffs, problems regarding hospital insurance as it affects the physician and patient, and the facts about medical ethics.

(3) In order to provide some liaison between our various hospital staffs, to encourage the better functioning of specialty privileges and tissue committees, as well as to improve and maintain good interhospital relations, the formation of an interhospital coordinating committee might be considered. This would consist of one physician and one administrative member from each hospital.

Within the Society itself certain actions should be taken:

(1) We should enforce stricter adherence to our ethical codes and employ corrective measures against those who grossly infringe.

(2) Better acquaint ourselves with good ethical behavior. Criticism, real or implied, by one physician of another physician to a third party is a grievous infringement of the ethical standards most fundamental to our profession and is the basis for most of the suits against physicians. It is one of the quickest ways to break down public confidence in the profession as a whole. There have been instances in this Society of one physician furnishing gratuitously, to a patient and a lawyer, material for use against another capable and ethical physician because of an accident inherent in his type of work. At this time one physician has criticised to a board of laymen the professional treatment carried out by another ethical and capable physician in his same specialty. Conflicts of opinion and criticism of behavior of another physician should be aired within our own organizations and our committees, not publicly.

(3) Arrange talks and panel discussions in our Society meetings to deal with the problems encountered by our Grievance Committee; have discussions of public re-

lations as applied to the individual doctor. These could emphasize the problems affecting us as individuals, as hospital groups, or the Society as a whole in relation to the public. Use such programs to replace some of our scientific programs.

(4) The employment of a full-time public relations secretary has been suggested. There are now over 600 members in the Society. Of some 70 medical societies of this size throughout the country, we are among the six or eight who do not have such a secretary. An additional sum of twenty to twenty-five dollars each yearly would employ such a secretary and provide some money in addition for much needed public education.

Let us now consider some of our other problems: first, the colored physician. I feel that practically every member of this Society believes the well trained colored physician does deserve some recognition. He has pursued the same course of studies, passed the same intensive examinations, met the same standards, and had the same internship as the white physician, and all of these in the face of severe handicaps—the handicaps of race, of prejudice, of insufficient finances, and of deficient opportunity. And still he is unable to attain membership in local or national medical associations; he is often without hospital facilities. The need for correction of these inequalities can scarcely be denied; the means of carrying out the change is not readily discernible or acceptable. The change is coming, however. Virginia within the month is admitting colored physicians to its state medical association. Within the year a colored physician has been admitted to a county medical society and the State Medical Association in Alabama. It is no longer a question of if they will be admitted, but when and how.

The chiropractic problem is still a grievous one and demands our continued attention. At our special meeting in July to consider the proposals of our State committee, approval was expressed of its plan to introduce new legislation. The State committee, however, later decided that the quality of our present laws justified their further trial. The weakness of our position is due largely to failure to enforce laws already on the statute books. Such enforce-

ment must be on a local level if it is to be successful.

There has developed in recent years the tendency for certain doctors to furnish for publication in lay magazines information and opinions derogatory to the profession and of certain medical practices. The secretary of a major surgical association has repeatedly issued public utterances deplored ghost surgery and fee splitting. The medical profession is in universal accord with the stand taken by this association, but not unanimously in accord with the method of releasing such criticism to the public press. Thus the public is given the impression that these are universal practices. I believe they exist with the greatest rarity in most locations as Jefferson County. Only once in twenty-six years of practice in Birmingham has any request for fee splitting been made to me personally and discussion with other physicians confirms this opinion. Such problems have urgent need of correction by education and enforcement through grievance committees, hospital staffs, tissue committees, and the mechanisms of county, state and specialty medical associations. The well regulated family handles its own problems of discipline, the church groups their own, the legal profession its own problems. Only when the internal organization and self discipline of a group break down or its moral fibre weakens do members rush to public broadcasting in an ill advised attempt to correct abuses which they themselves are pledged to correct within the group or profession of which they are a part.

Hospital and medical insurance has become a potent part of medical practice. Blue Cross-Blue Shield plans *throughout* the nation have done much to silence our severest critics, the exponents of socialized plans for medical practice. In Alabama it has the backing and approval of the county medical societies and with fair treatment it will continue strong. Abuse by over-hospitalization of patients could ruin it. Its fate is largely in the hands of the doctors. (We should remind ourselves that approval by this medical society is not authorized directly or by implication of name for any other insurance corporation.) Continued study of service-type medical insurance is now in progress and such a program will be presented to the Society in the near future. I would urge every member to give it his

careful consideration and vote when the time comes.

On behalf of the Jefferson County Medical Society I extend a welcome to our new members. A few have transferred membership from similar organizations elsewhere, but most are now beginning the actual practice of medicine here in Jefferson County. You will now proceed to membership in the Alabama State and American Medical Associations.

This membership confers great privileges. It also implies definite obligations. Most important is the obligation to support this organization by your regular attendance at its meetings, and to exemplify, defend, and improve it at every opportunity. Hospital staff meetings, committees, specialty groups and a variety of organizations all demand your time, but remember always that the County Medical Society is the keystone of organized medicine in this locality. Without it all other medical organizations would be futile. Imagine, if you can, the chaos of medical practice in Jefferson County without this organization.

In your treatment of each individual patient you represent medicine to the public. The standing of the medical profession in your particular segment of society is largely determined by your individual ability and your conduct. As your ability is improved, as your morals are good, as your treatment of patients is fair and honest, as you demand high standards from yourself and your fellow physicians, just so will the standing of the medical profession rise in your community and in the nation. These things constitute good medical ethics. They are the very foundations of good public relations.

One of the most rewarding aspects of the presidency of this Society is the privilege of working with all segments of this large medical group. Without exception all of the members give generously of their time and effort to work out the problems as they present themselves. I would take this opportunity to express my sincere appreciation of the work of our Secretary, of the Board of Censors, the Grievance Committee, and the individual members of the numerous other committees who have worked with us this year. (There are in this Society no cliques, no groups. It is hoped sincerely that this will always be so. This does

not mean that there are not wide differences of opinion. There are. These differences of opinion are necessary to work out the problems of this Society.)

I congratulate you upon your choice of officers nominated for the coming year. It is difficult indeed to choose these few from the many who could so well serve the Society. I would especially congratulate those members who will have this opportunity to learn a great deal about the functioning of the Medical Society here in Jefferson County and in the State, and who will have an opportunity to work and become better acquainted with the six hundred members of the Society. It will be an opportunity that I wish each one of you could experience.

During the past few years some of our more urgent problems have been brought before the Society. Free discussion has been provided, both in committee and on the floor, and some decisions have been made. It is hoped that most of them have been moves in the right direction. If some were not, we will all cooperate to correct them. It is believed that our Society, a large group of physicians collectively and individually interested in the serious problems that confront medicine today, will arrive at a correct solution of them. To this end, your retiring president would urge, above all else, your continued interest in your County Medical Society as evidenced by your attendance at every meeting and your active and continued interest in these problems.

WHICH DO WE FOLLOW?

W. A. Dozier, Jr.
Director of Public Relations

Several months ago the *Bulletin* of the Southern States Industrial Council printed two creeds, one beside the other. The reader was admonished to study each and decide which our country was following more closely. Here were the creeds listed:

COMMUNIST MANIFESTO

1. Abolition of property in land and application of all rents of land to public purposes.
2. A heavy progressive or graduated income tax.
3. Abolition of all right of inheritance.
4. Confiscation of the property of all emigrants and rebels.

5. Centralization of credit in the hands of the state, by means of a national bank with state capital and an exclusive monopoly.

6. Centralization of the means of communication and transport in the hands of the state.

7. Extension of factories and instruments of production owned by the state; the bringing into cultivation of waste lands, and the improvement of the soil generally in accordance with a common plan.

8. Equal obligation of all to work. Establishment of industrial armies, especially for agriculture.

9. Combination of agriculture with manufacturing industries; gradual abolition of the distinction between town and country, by a more equitable distribution of the population over the country.

10. Free education for all children in public schools. Abolition of child factory labor in its present form. Combination of education with industrial production, etc.

TEN COMMANDMENTS

1. Thou shalt have no other gods before me.
2. Thou shalt not make unto thee any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water under the earth.
3. Thou shalt not take the name of the Lord thy God in vain; for the Lord will not hold him guiltless that taketh His name in vain.
4. Remember the sabbath day, to keep it holy.
5. Honour thy father and thy mother; that the days may be long upon the land which the Lord thy God giveth thee.
6. Thou shalt not kill.
7. Thou shalt not commit adultery.
8. Thou shalt not steal.
9. Thou shalt not bear false witness against thy neighbour.
10. Thou shalt not covet thy neighbour's house, thou shalt not covet they neighbour's wife, nor his manservant, nor his maid servant, nor his ox, nor his ass, nor any thing that is thy neighbour's.

* * *

Which are we following? The answer to this question is left to you.

However, one thing needs pointing out. We have all heard the quotation that a rose

by any other name would smell as sweet. The word communism is an anathema to us, yet one questions how closely a people can come to embracing the tenets of a system without going all the way. Also, note how

closely the manifesto above seems to fit our idea of socialism. The whole matter is food for thought—thought unfettered by stigmatizing names.

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

THE NEW LABORATORIES BUILDING

Contributed by

Nadine Pitts, Director

Division of Public Health Education

Do you remember looking forward with keen anticipation to moving into a new home? Or if the home were being constructed especially for you and your family, do you recall a sense of pride with each newly-added brick or piece of lumber? Just such feelings were experienced by the staff of the State Department of Health's Bureau of Laboratories during the year 1953 and part of 1954. For they were privileged to watch the construction of Alabama's modern, functionally designed Bureau of Laboratories building. A stone's throw from their crowded office quarters in Alabama's capital city, they could see each new steel beam, concrete wall and window take its place as the building neared completion with each passing day. And then, in mid-October 1954, the building was finished and the staff of the Department's main laboratory moved into its new air-conditioned quarters.

However, the new Bureau of Laboratories building is not the exclusive property of the staff. On the contrary, the building belongs to all Alabamians, and all citizens of the State can take pride in their new possession. The building, located in the Capitol area in Montgomery, is truly one of Alabama's public health milestones. For the first time in many years, all of the offices of the main laboratory are together under one roof. And perhaps even more important, new equipment and additional space will enable the laboratory to conduct research and specific types of work which were not possible before that time.

Let's take a closer look at the new Bureau

of Laboratories building. First of all, the structure was built at an estimated cost of approximately \$650,000. However, the State of Alabama did not have to pay this whole amount. Two-thirds, or upward of \$400,000, of the construction costs were paid by the Federal Government. The funds were made available under the terms of the Hill-Burton Hospital Construction Act. The remaining one-third of the funds was State money, made available by an appropriation of the Alabama legislature.

Included in this amount was an estimated \$69,209 for new, movable equipment. This amount does not include some of the laboratory's equipment, such as built-in refrigerators and incubators. When the move into the new building was begun, the main laboratory was able to discard much old equipment which had long outlived its usefulness. Some of it was in such condition that it had to be wired together in order to be used!

The Bureau of Laboratories building is striking in appearance. The exterior is painted white. An unusual feature is immediately evident at a glance. The windows stand out as dark rectangles against the white walls. The use of special types of screens throughout most of the building are responsible for this appearance. The special screens deflect the rays of the sun, thus making the use of window shades or blinds unnecessary. Two sets of angular steps lead up to the building's main entrance. A small vestibule inside the entrance has walls of smooth, Alabama marble, and floor of terrazzo, similar to marble in appearance.

The structure, unlike an ordinary office building, has many special features. Many of these features were desirable if not mandatory for the laboratory's exacting bacteriologic, immunologic, and chemical work of a routine and research nature. For ex-

ample, many of the interior walls are of clear-glazed facing tile to permit ready washability. But more of these special features later as our tour takes us into the special sections of the building.

The ground or basement floor houses snack rooms for the staff, a clearinghouse section, a clinic room and storage space. Three vehicles of transportation connecting the building's different levels begin on the basement floor. These are the elevator system, stairs—on both sides of the building—and an automatic dumbwaiter, also with two outlets on each floor. The clearinghouse section is the center of activities revolving around the forwarding of supplies to each of the eight branch laboratories maintained by the State Department of Health in different parts of the State. This section also is responsible for sending to Alabama physicians vaccines and other biologics which are made available to them at no cost. The section also receives food and other specimens, samples from public water and milk supplies, and animal heads for routing, via the dumbwaiter, to the proper laboratory division for examination. The clinic room is available for taking blood and other specimens on the premises for examination.

The first or main floor houses the director's office and that of the assistant director, the clerical staff, the milk and water section, the combination library-conference room and the microscopy room. The library-conference room is long, and built-in bookshelves line two of its walls. The room is furnished with tables and chairs, a magazine rack and colorful draw drapes. The director's office is equipped with an inter-office public address system. This system enables the director to contact any office in the building quickly.

The milk and water section occupies the right wing of the main floor. For its regular duties—the testing of samples from milk and public water supplies in the State—this division has some new laboratory equipment. There is a walk-in incubator approximately twenty feet long. The division, as well as the other different laboratory sections, has narrow work tables, built in alongside the interior walls. Among the new models of equipment are the Majonnier tester, a cryoscope, a cream tester and colony counters. The Majonnier tester is a device used to determine the butter fat

content of milk. This new machine enables the laboratory to obtain more nearly accurate results than were possible with the equipment formerly in use. The cryoscope is an instrument which laboratory workers use to see if water has been added to milk, and the colony counter enables the bacteriologist to determine the number of bacteria colonies in a given sample of milk or water.

Occupying the left wing of the main floor is the microscopy and parasitology room. As the name implies, this division makes extensive use of the microscope in its testing work. Examinations of slides for evidence of rabies, gonorrhea, diphtheria and the protozoan diseases, such as amebic dysentery, are run routinely. The microscopic section is the proud possessor of a new model Bunsen burner. Although this device has long been used by laboratories, the flame in the older models had to be regulated by means of a hand-turned switch. The flame of the new model can be regulated much more quickly and easily with the press of a button plate.

The entire right wing of the second floor is occupied by the Bureau of Laboratories' serology section. It is in this division that laboratory workers conduct tests on blood specimens to determine the presence or absence of syphilis. Unlike some of the other divisions, the serology section uses relatively simple equipment. There is room for expansion of this division in the event the laboratory is called upon to examine more specimens than the ordinary, routine load.

The left wing of the second floor houses the bacteriology section, the virology and the Brucella rooms. A hood-like apparatus is in evidence for the first time in the bacteriology section. For it is here that blood specimens are tested to determine the presence of typhoid fever and typhus organisms. The special hoods enable laboratory workers to examine dangerous organisms with reasonable protection for themselves. A special, small room is set aside for work with the Brucella or undulant fever organism—one which is considered particularly dangerous for those who work with it.

Hampered by lack of equipment and space, the Bureau of Laboratories has not in the past been able to conduct any work with diseases caused by viruses. Poliomyelitis and parrot fever, as well as influenza, are among the diseases caused by such organ-

isms. Now, however, the Bureau has a fair-sized virology laboratory equipped with adequate devices for carrying on work of this kind. Laboratory work often requires that specimens for testing be subjected to extreme degrees of temperature. One refrigeration device in the virology laboratory has as its bottom limit a temperature of eighty-five degrees below zero! In other words, the "chill chest," as it is so aptly called, has the same refrigeration potential as dry ice.

Space is also available on the second floor for teaching and orientation purposes. A new employee for the tuberculosis division, for example, receives a special test as a protective measure. During the waiting period following the test, before she can take over the job, she learns about the special laboratory procedures in current use by the Bureau of Laboratories.

Our tour of the laboratory takes us next to the third floor. Much of the space on this level is devoted to tuberculosis work. Perhaps the most interesting features of this section are the precautions taken to protect laboratory workers from tuberculosis. There is a shower and locker room, for no laboratory workers can leave the section without changing uniforms. In addition, all water and soap dispensers are operated by foot pedals, to rule out the possibility of tuberculosis spread by the use of hands which have been working with the tubercle bacillus. Moreover, the building was so engineered and constructed that even the air in the tuberculosis section does not enter other parts of the building. Rather, a special outlet is provided. Still other devices used in this connection are protective stainless steel and glass hoods, a machine for plugging tubes with cotton, a tube-filling device and special lamps which sterilize by radiation. These lamps are used in the room where tuberculosis specimens are received.

Sterilization of all the laboratory's equipment is effected in a special section on the third floor. There is space here, too, for storing the sterilized glassware until it is ready for use. One piece of equipment—an autoclave, which is a device for sterilizing with steam under low pressure—is one of the first of its kind in operation in the country, according to an Alabama public health official.

A section is also set aside on the third

floor for the production of vaccines. This biologics division, unlike other sections of the laboratory, is equipped with an electric precipitron. The precipitron filters the incoming air. In addition, the vaccine has its own sterilizing room, apart from the main sterilization division.

The building's top floor serves as the laboratory's animal house. Cages suspended from the ceiling contain guinea pigs, rabbits and mice, animals used by the laboratory in routine testing procedures. Space is also provided for housing sheep. Other special features of the animal house include a sterilizing apparatus for cages, an incinerator for disposing of animals and animal heads, a waste disposal system, "operating" rooms, and a Strycker bone saw to replace the ordinary hatchet formerly in use.

The State Health Department's Bureau of Laboratories, with its new quarters and new equipment, can now perform more satisfactorily its routine duties. In addition, it can devote more and more of its time to numerous unexplored problems in infectious and chronic diseases.

Glaucoma—Primary congestive glaucoma may be acute or chronic. The chronic form is characterized by recurrent attacks of elevated intraocular pressure. These attacks may be transient at first and then slowly increase in severity and duration. The patient may or may not complain of blurred vision and of halos around lights. The latter is more likely to be noticed by the patient. Mild recurrent headache may be the symptom which brings him to the physician. When you have a patient with the chief complaint of recurrent headaches always question him as to the occurrence of halos or of diminished vision. It is sometimes surprising, however, how poor the vision can become and the patient not be aware of it. This is because glaucoma frequently affects one eye first and of course the other eye with normal vision "covers" for the involved eye. As the attacks increase in duration the headaches become more severe and prolonged, and frequently it is at this time that the patient consults his doctor. Unless he is in the attack there may be nothing to make you suspicious. If he is in a congestive phase there will be photopsia, blurred vision, and injection of the conjunctiva. Unless you keep glaucoma in mind the headache may be confused with one of vascular origin. There may be a history that the attack was precipitated by exposure to darkness, or that the patient has been mentally upset. Occasionally, the attack may wake the patient out of a sound sleep.
—Booth, J. Louisiana State M. Soc., January '55.

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HYDERGINE

A HYPOTENSIVE AGENT

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In a previous paper¹ it was pointed out that since the year 1827 and up until this time we of the medical profession and the research laboratories have been looking for an adequate hypotensive agent. Probably one of our great errors in using a hypotensive agent has been the fact that we select a drug which has worked well on one patient and expect that same drug to give us the same results on all our patients with high blood pressure.

It therefore behooves us to follow a more scientific approach to this problem of hypertension and look more thoroughly for its etiology. Probably one of the best etiologic classifications of hypertension was formulated by Page and Corcoran.² They listed four main causes and one unknown cause; the four main causes, renal, cerebral, cardiovascular and endocrine, have etiologic factors. However, it is the unknown cause under which essential and malignant hypertension is listed in which we are interested and for which we would like to have an adequate drug.

Probably no one medical condition has been treated with as many different reme-

Read before the Lee County Medical Society, Opelika, at its January 1954 meeting.

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The Hydergine used in the cases referred to was made available through the courtesy of Mr. Paul Finstad of Sandoz Pharmaceuticals.

1. Schultz, F. B.: Am. Pract. & Digest of Treat. 4, 5 (May) 1953.

2. Page, I. H., and Corcoran, A. C.: Arterial Hypertension, Its Diagnosis and Treatment, ed. 2, Chicago, Year Book Publishers, 1949, p. 25.

dies as the latter two conditions mentioned above. In the past two or three years the one drug which has received the most publicity and probably the most use is Rauwolfia serpentina. This has been used in so many different forms and combinations for the treatment of hypertension that it is getting into the category of the early days of vitamins and sulfonamides, when fantastic claims were made and written about them.

If I may digress, I would like to give a brief summary of Rauwolfia serpentina. When I began to go into the serious treatment of hypertension, about all I knew of Rauwolfia was that it came from India. After a little more careful prowling through the literature, I learned that a preliminary report was made on this drug in the early part of 1933.³ From this report it is learned that Rauwolfia serpentina is a small, erect, glabrous shrub about one and one-half to three feet tall, bearing white or pinkish flowers. In Sanskrit it is known by the name of sarpagandha, in Hindu as chotachand, and in Bengali as chandra. In Bihari it is known as dhan barua, as karavi in Bombay, and chuvana-avilpori in Malay. In some of the northern districts of India it is found in abundance and popularly known in the bazaar as pagla-ka-dawa meaning "insanity herb."

The roots, the leaves and the juices therefrom have been considered of medicinal importance from very early times, and were used extensively by the early Indian and Malayan physicians. In Java it was used as

3. Chopra, R. N.; Gupta, J. C., and Mukherjee, B.: Indian J. M. Research 21, 261 (Oct) 1933.

an anthelmintic. Other uses for this herb were in opacity of the cornea, and in insect and poisonous snake bites. It was also used for its beneficial effect on all forms of bowel complaints. These included diarrhea, dysentery and cholera.

In 1931 five alkaloids were isolated from this shrub and named ajmaline, ajmalinine, ajmalicine, serpentine and serpentinine. The principal finding experimentally and with which we are interested was the effect that these alkaloids had on the circulatory system; namely, when the alkaloid was injected into the femoral vein, it produced, in the majority of animals, a fall of carotid blood pressure varying from 10 to 15 mm. of Hg. within five seconds. This appeared to be due to diminished cardiac output. It was further felt that the fall in systemic blood pressure was due to dilatation of the blood vessels in the splanchnic area.

As pointed out by Wilkins and Judson⁴ in 1953, serpina adds another drug to the long list of hypotensive agents, yet they are somewhat in disagreement as to its chemistry and pharmacology. Nevertheless, there is no question that this drug has a place in the treatment of so-called essential hypertension. During the recent American Medical Association Interim Meeting held in Miami in December of 1954, it was pointed out by Dr. J. Gordon Barrow, of Emory University School of Medicine, that Rauwolfia and its derivatives are most useful in mild cases of hypertension and as adjunctive therapy to more potent agents in moderate and severe cases. In this latter connection, the various drug houses are now bombarding us with innumerable remedies for our hypertension patients, most of which have Rauwolfia attached to some other drug or agent. It is needless to say that all hypotensive agents have certainly had a full and fair trial, especially Rauwolfia.

As pointed out in my paper¹ on Hydergine, excellent results were obtained with it, not only in the mild cases but in the severe cases as well, and without the added aid of more potent agents. During the period from May 1953 to May 1954, twenty-five consecutive cases of hypertension came under my personal care and were treated under institutional conditions (Table 1). As is seen in this table, the treatment, in the

main, was Hydergine. Low sodium diets and phenobarbital were used at times. It will be noted, however, that in no instance was a more potent hypotensive agent used.

As to the cases shown in Table 1, the question will always arise, would not the patient have done just as well with bed rest and phenobarbital? To this question, the answer is, probably yes. However, from the economic standpoint and that of the practicing physician, ambulation may be necessary and dictate the use of drug therapy. Thus we try to use an agent which has given results and with the least side effects, and this I have found to be Hydergine.

What we are searching for is a simple, easy to handle drug which will be effective. It is well known that adrenergic blockade is obtained by surgical sympathectomy. This latter procedure is not only radical and irreversible but certainly unpredictable. Goodman and Nickerson⁵ listed several effective sympatho-adrenal blocking agents, among which are the ergot alkaloids. Extensive research by Dale⁶ into the physiologic actions of ergot and by Stoll⁷ into the chemistry of this fungus has resulted in the isolation of a number of alkaloids which today serve as important members of the medical armamentarium. Three alkaloids derived from ergotoxine were subjected to extensive pharmacologic study in their hydrogenated forms.^{8,9} A combination of these, dihydroergocornine, dihydroergocristine and dihydroergokryptine, known as Hydergine was the subject of thorough clinical investigations which revealed its usefulness in the treatment of hypertension. The action of Hydergine is essentially vasodilator, and study reveals that this is mainly due to a dampening effect on the vasomotor center, complemented by a latent adreno-sympatholytic activity.⁹

As was shown in my previous paper,¹ no toxic symptoms developed in the series of cases in Table 1. There was no nausea or vomiting. In the majority of cases, there

5. Goodman, L. S., and Nickerson, M.: M. Clin. North America 34: 379-394 (March) 1950.

6. Dale, H. H.: J. Physiol. 34, 163, 1906.

7. Stoll, A.: Acta Soc. Helvet. Sc. Nat. 190, 1920; Progress in Allergy 3, 388, 1952.

8. Stoll, A., and Hofmann, A.: Helv. Chem. Acta 26, 2070, 1943.

9. Rothlin, E.: Bull. Acad. Swisse des Sc. Med. 2: 4, 1946-47.

4. Wilkins, R. W., and Judson, W. E.: New England J. Med. 248: 48-53 (Jan. 8) 1953.

was a slowing of the pulse rate (which in hypertension is most certainly an added help). The feeling of stuffy nose was more noteworthy in those patients receiving intramuscular injections; this is clearly due to a vasodilator action.

The question has arisen, with the use of this type drug, that too much of a blocking mechanism is apt to occur, especially in those cases with coronary artery disease or those with arteriosclerotic changes. In none of these cases did this occur. As seen by the age group of the cases presented, arteriosclerotic changes were surely present.

It might be well to point out here, as shown by Anderson and Rubin¹⁰ as well as many other investigators, that Hydergine has the following actions:

1. Depression of the central vasomotor centers with resultant vasodilatation.¹¹

2. Peripheral vasodilatation.¹²

3. Central inhibition of pressor-receptor reflexes which bring about compensatory vasoconstriction and arterial blood pressure rise.¹³

4. Centrally induced bradycardia; this

is rather unusual among sympathetic blocking agents.¹⁴

5. Synergistic action with central depressant.¹⁵

6. An adreno-sympatholytic effect.¹⁶

7. Decrease in vascular distensibility, increase in venous pressure, and increasing prominence of arterial pulsations.¹⁷

Before the clinical treatment of this last series of patients was undertaken, vertigo was encountered as a frequent complaint. With Hydergine this symptom disappeared. The present day concept of labyrinthine vertigo is the result of arteriolar spasm with dilatation of the capillary-venule network distal to the spastic segment, the sludging of blood, liberation of toxic metabolites, among which is histamine; anoxia of the blood vessel walls, and increased capillary permeability which leads to tissue edema, and possibly increased accumulation of endolymph. Horton of the Mayo Clinic has used his antihistamine treatment in these cases and in Meniere's syndrome. This same group of workers has also used another ergot preparation in the form of dihydroergotamine methanesulfonate (DHE-

TABLE I

Case	Age	Known Duration	B. P. Before Therapy	Diet	Therapy		Length of Treatment	B. P. On Discharge
					Hydergine	Phenobarbital		
CAL	56	4 months	214 ?	1500 mg. Na.	gr. 1 q.i.d.		18 days	140 80
WCH	60	1 year -	200 110	Light	1 cc. daily	gr. 1/2 h.s.	31 days	140 80
RS	55	1 year -	164 102	1500 mg. Na.	1 cc. daily	gr. 1/2 q.i.d.	38 days	130 78
ARP	59	3-4 years	170 100	1000 mg. Na.	1 cc. daily	gr. 1/2 q.i.d.	42 days	130 80
CWT	60	14 months	192 100	1500 mg. Na.		gr. 1/2 q.i.d.	48 days	144 100
JH	55	2 years	230 140	1500 mg. Na.	1 cc. b.i.d.		37 days	168 94
HB	58	4-5 years	170 124	2000 mg. Na.	1-2 cc. daily	gr. 1 t.i.d.	51 days	184 98
HAP	57	8 months	194 100	1000 mg. Na.		gr. 1 q.i.d.	37 days	130 70
AEF	61	7 years	180 110	Light	1 cc. daily		15 days	150 84
EHW	59	4 years	180 104	500 mg. Na.	1 cc. daily	gr. 1/2 h.s.	46 days	140 90
JML	59	3 years	190 96	Reg.	1 cc. daily		21 days	130 78
HNM	59	3 months	168 102	1000 mg. Na.	1 cc. daily		42 days	138 80
WCK	56	5 years	240 130	500 mg. Na.	1 cc. b.i.d.		77 days	170 100
AD	59	Several years	250 148	500 mg. Na.	1 cc. b.i.d.		74 days	178 100
WTS	55	Several years	180 130	1 gm. Na.	1 cc. daily		21 days	140 94
EHW	61	15 years	200 114	500 mg. Na.	1 cc. daily - 1 t., t.i.d		33 days	150 90
TWA	47	4 years (3 admissions)	205 120 (av.)	Reg.	1 cc. daily - 1 t., t.i.d		89 days	170 94 (av.)
BL	42	5 years (2 admissions)	184 140 (av.)	500 mg. Na.	1 cc. daily - 1 t., t.i.d		18 days	180 140 (av.)
AWS	56	4 months	190 130	Bland	1 cc. daily		11 days	170 110
SLB	61	3 years	150 130	1 gm. Na.	1 cc. daily		43 days	142 88
EHW	59	2 years	200 106	500 mg. Na.	1 cc. daily	gr. 1/2 h.s.	65 days	164 88
ABB	58	Several years	164 110	1000 mg. Na.	1 cc. daily	gr. 1 t.i.d.	4 days	140 80

10. Anderson, J. R., and Rubin, W.: Laryngoscope 64: 6, 497 (June) 1954.

11. Nickerson, M.: J. Pharmacol & Exper. Therap. 95: 27 (April) 1949.

12. Freis, E. D.: Stanton, J. R., Litter, J., et al.: J. Clin. Investigation 28: 1387, 1949.

13. Bartonelli, C., and Bruno, F.: The International Cardiac Conference, Paris, 1950.

14. Bluntschli, H. J., and Goetz, C. B.: Am. Heart J. 35: 873, 1948.

15. David, N. A., and Semler, H. J.: Federation Proc. 11, 335, March '52.

16. Rothlin, E.: Bull. Schweiz. Akad. d. Med. Wissensch 2: 249, 1947.

17. Freis, E. D., et al.: J. Clin. Investigation 28: 1387, 1949.

45) with exceptionally good results for parenteral relief of throbbing, recurrent headaches and in acute migraine attacks.

Hydergine, by means of its pharmacodynamic actions, relieves the vascular spasm by its peripheral vasodilatory action, at the same time depressing the central vasomotor center.

Most cases of essential hypertension are thought to be of psychosomatic origin. This psychosomatic disturbance may be mediated through the autonomic nervous system, causing a relative sympathetic vasoconstriction of the vascular bed. It has been pointed out on several occasions that vasoconstriction in the kidneys causes elaboration of long acting pressor substances into the circulation.

With hypertension we appear to have a long series of trigger actions beginning centrally and ending peripherally. With Hy-

dergine we have a drug which has the ability to depress the sympathetic neurogenic influences, as well as providing peripheral vasodilatation. To provide central sedation and to lower the blood pressure, and as pointed out by Anderson and Rubin, all these effects are obtained without signs of vasomotor collapse.

SUMMARY

A report is made of further results of a clinical evaluation of Hydergine. The pharmacology of this dihydrogenated ergot alkaloid is briefly reviewed. The results obtained clearly show that, in comparison to other hypotensive agents, more potent drugs are not necessarily needed to provide adequate treatment.

CONCLUSIONS

While Hydergine is not the conclusive answer to the treatment of essential hypertension, it is effective and can be used safely without alarming side effects.

CERVICAL STENOSIS, CERVICAL STENOSIS AND ENDOMETRIOSIS, AND PELVIC ENDOMETRIOSIS

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The infected uterine cervix is a common cause of vaginal discharge, urinary symptoms, pelvic pain and low backache. A review of the literature reveals that much has been written on this topic. The author became interested in the various types of treatment of the infected cervix because of the numerous methods of treatment revealed in patients' histories. It is common knowledge that many complications can result from the infected cervix and from its treatment.

The purpose of this paper is to point out two complications which are mentioned in the literature and are seen in private practice. However, in the author's opinion these complications are not stressed sufficiently. These complications are cervical stenosis and cervical stenosis associated with pelvic endometriosis.

With each patient a complete history and adequate pelvic examination, including combined recto-vaginal and rectal examinations, are most essential. Careful and meticulous examination to include the various methods for ruling out malignancy is absolutely necessary. However, this paper

does not delve into that realm of cervical disease.

Twenty-three case summaries are presented, of which there are nineteen cases of cervical stenosis. Of these nineteen cases there are nine cases associated with pelvic endometriosis. These resulted from various cervical procedures. The cases were seen during a one year period from April 1953 through March 1954 in a private obstetrical-gynecological practice in a small city. This is a review of these cases.

SUMMARY OF CASES

In the cases summarized, the etiology of cervical stenosis was:

- Conization of cervix—12 cases.
- Obstetric lacerations of cervix—3 cases.
- Cervical amputation—2 cases.
- X-ray—1 case.
- Cauterization of cervix—1 case.

Of the cases of cervical stenosis which were associated with endometriosis, the etiology was:

- Conization of cervix—5 cases.
- Obstetric lacerations of cervix—2 cases.
- Cervical amputation—1 case.
- Obstetric laceration and cervical conization—1 case.

CERVICAL STENOSIS

CASE REPORTS

Case No.	Age	Parity	Duration of Symptoms	Cervical Stenosis	Cervical Stenosis and Endometriosis	Endometriosis	Previous Procedures Performed
1.	28	G2P1	2 yrs.	x			Conization—8 $\frac{1}{2}$ yrs. ago. Surgical conization 2 yrs. ago.
2.	28	G2P2	5 mos.	x-uterosacral ligaments			Jan. '53—appendectomy and tubal ligation. Oct. '53—cervical amputation. Jan. '54—D & C, cervix stenotic with hematometria. Feb. '54—total abd. hyst. and left S & O. Path. Report: Tubo-ovarian abscess. Cervix completely stenotic. Uterus with adenomyosis.
3.	35	G1P1	?		x-uterosacral ligaments		March '52—tubal ligation, appendectomy, cervical conization.
4.	53	G2P2	None	x			10 yrs. ago x-ray for menometrorrhagia.
5.	43	G3P2	1 yr.		x-uterosacral ligaments, 5 cm. rt. ovarian mass.		March '49—appendectomy, uterine suspension, cysts removed from ovaries. 1950—D & C (severe pelvic pain and dysmenorrhea.)
6.	40	Nullip. No contraceptives.	10 yrs.	x-uterosacral ligaments uterus slightly enlarged, tender, painful on manipulation.			12 yrs. ago—appendectomy, part of rt. ovary removed, conization of cervix.
7.	41	G1P1	5 yrs.	x-uterosacral ligaments Uterus 2 $\frac{1}{2}$ times enlarged with myomata.			1944—cervical conization.
8.	29	G2P1	?	x-uterosacral ligaments			Old obstetric laceration of cervix
9.	32	G4P1	10 yrs.		Rectum, uterosacral ligaments, parametria, left ovarian 5 cm. mass.		None
10.	49	G5P3	3 yrs.	x			23 yrs. ago—ant. and post. vaginal repair. 14 yrs. ago—perineorrhaphy. 3 yrs. ago—cervical amputation, repair of cystocele. Now has cervical stenosis, hematocele, rectocele, cystocele, marked scarring.
11.	39	G3P2	13 yrs.		x-with hematometria, uterine myomata, uterosacral nodules.		1941—cysts removed from ovaries, appendectomy, perineorrhaphy, cervical conization.

CERVICAL STENOSIS

J.M.A. Alabama
March 1955

CASE REPORTS

Case No.	Age	Parity	Duration of Symptoms	Cervical Stenosis	Endometriosis	Previous Procedures Performed
12.	34	G4P1	4 yrs.	x-uterosacral		Obs. laceration of cervix severe. 1950-D & C. DCC. '51—perincorraphy, hemorhoidectomy, removal of endometriomas abdominally.
13.	46	G1P1	10 yrs.	x-with uterine myomata		1943—perincorraphy and cervical conization.
14.	29	G2P2	6 mos.	x		Feb. '52—D & C and cervical conization. Nov. '53—D & C. Feb. '54—follow-up cervical dilatations.
15.	32	Nulip., No contraceptives	2 yrs.	x		1942—"cut cyst off tube", appendectomy, uterine suspension. March 1952—D & C, cervical conization. June '53—D & C. Sept. '53—follow-up cervical dilatations.
16.	34	G2P2	6 yrs.	x-uterosacral ligaments		1943—cervical conization, oophorectomy, bilateral salpingectomy.
17.	57	G1P1	None	x		Severe old obs. laceration.
18. 19.	33	G4P3	1 yr.	x-menometrorrhagia		1952—D & C, cervical conization. Sept., Dec. 1953—cervical dilatations.
19.	34	G2P2	4 yrs.	x-with hematometria, uterosacral ligaments		1949—tubal ligation, removal of ovarian cyst, perincorraphy (3 mos. postpartum) 1949—cervical conization (3 mos. after the above). 1951—uterine suspension. Sept. '53—total abd. hysterectomy. Path. Report: Marked cervical stenosis, chronic cystic cervicitis, severe old obs. laceration.
20.	25	G3P2	1 yr.	x-uterosacral ligaments		Mod. severe obs. laceration. March 1953—D & C, cervical conization.
21.	32	G1P1	6 yrs. following delivery	x-with hematometria, uterosacral ligaments.		6 yrs. ago—obs. laceration. 6 yrs. ago—cervical cauterization. 4 yrs. ago—cervical conization.
22.	44	G2P2	5 mos.	x		1946—Uterine suspension & tubal ligation. 1953—cervical conization. 1953—left S & O, total abd. hysterectomy. Path. Report: acute & chronic cervicitis, chronic myometritis, secondary to pelvic peritonitis. Tubo-ovarian abscess.
23.	26	Nulip. No contraceptives	3 yrs.	x-uterosacral ligaments		1950—D & C. Sterility problem for years.

The above classification of the etiology of cervical stenosis conforms with the acquired etiology as given by Melody.¹

A number of theories as to the etiology of pelvic endometriosis have been reported,² namely:

1. Transtubal implantation.

Sampson thought that, in certain cases, during menstruation some of the blood and endometrial tissue passed out through the tubes and into the peritoneal cavity. Some of this blood at times during menstruation escapes through patent tubes into the peritoneal cavity, carrying bits of Mullerian mucosa. This tissue becomes implanted and grows at the point where it happens to fall. Any condition causing obstruction to the free cervical exit of the menstrual blood was thought to be a factor in the transtubal implantation.

2. Heteroplasia of the serosa or celomic epithelium (Iwanoff, Meyer, Fishel, Novak).

This theory is based on the embryologic fact that the living mucous membrane of parts of the Mullerian canal (tubes, uterus and vagina), as well as the general epithelium covering the ovary and the pelvic peritoneum, are all derived from celomic epithelium. Some of the less highly differentiated portions retain the power of further differentiation later in life so that they may, under the influence of unknown stimuli, develop into differentiated tissue.

3. Metaplasia of the lymphatics (Schiller).

4. Metastasis by way of the lymphatics or blood stream (Halbon, Mestity).

In three cases of cervical stenosis associated with pelvic endometriosis (Cases 2, 3, and 19), all patients had had previous tubal ligation, cervical amputation in one case and cervical conization in the other two cases, with development of endometriosis in the uterosacral ligaments at later dates. There is a suggestion of lymphatic involvement in these three cases.

During the same period of time that the above patients were seen, there were three

cases of pelvic endometriosis unassociated with the above, while there were nine cases of cervical stenosis associated with pelvic endometriosis. Thus, the incidence of cervical stenosis associated with endometriosis was three times that of the simple uncomplicated pelvic endometriosis.

A review of the literature reveals many methods for the treatment of cervical infections. However, it is felt that many of them are obsolete. The author prefers the following. For those cases due to vaginitis and venereal infections, appropriate chemotherapy of each is usually sufficient. Inspection of the immediate postpartum cervix, with proper surgical repair, will eliminate many of the post-delivery lacerated, everted cervices which become infected. As stated by Dr. Conrad Collins,³ the author feels that two basic factors should guide one in choice of procedure: "first, the degree of infection as evidenced by the amount of hypertrophy, hyperplasia and cystic change in the cervix; and, second, the degree of laceration, i. e., whether the laceration has been extensive enough to produce marked eversion or not. The site of the laceration, or whether it is unilateral, bilateral or stellate, has little or no influence on the choice of procedure to be used."

A. The Cervix Without Eversion.

"The cervix which is without eversion, but has a mild erosion with little or no endocervicitis, requires only the destruction of the erosion by means of the actual cautery. Should endocervicitis be present also, cauterization of the cervical canal with a very fine point cautery, care being taken not to cauterize too deeply or keep the cautery blade in contact with the tissues for too long a time, will produce the desired results. If only a mild amount of hypertrophy, hyperplasia and or Nabothian cyst formation exists, in addition to the endocervicitis, i. e., the cervix is only slightly enlarged over its normal size, then deep cauterization of the Nabothian cyst with the cautery point is all that is necessary." The author feels that in cervices of the same type, with a large amount of hypertrophy, hyperplasia, and cystic degeneration as evidenced by a cervix which is one and one half to three times larger than normal, the nasal type cautery

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should be used; but for those that fail to respond, where the patient has completed her childbearing function, and there are symptoms of cystocele, rectocele, or uterine prolapse associated with other pelvic disease, hysterectomy should be performed.

B. The Cervix With Eversion.

"For the cervix with eversion, and no hypertrophy, hyperplasia or cystic change, trachelorrhaphy is the procedure of choice." All others should be dealt with according to age, childbearing function, and or associated pelvic findings or pelvic disease.

SUMMARY

1. Nineteen cases of cervical stenosis have been presented, of which nine cases were associated with endometriosis. These followed various cervical procedures.

2. Three cases of pelvic endometriosis were seen unassociated with cervical procedures.

3. In three cases there is suggestion of lymphatic origin of the disease.

4. A method of treatment of the infected cervix is outlined.

CONCLUSIONS

1. The author feels that cervical conization is a dangerous procedure used too frequently when careful routine use of the nasal type cautery most often will produce desired results with a minimum of complications.

2. Routine inspection and proper surgical repair of the obstetrically lacerated cervix will avoid many of the cases of cervicitis with eversion.

3. It is suggested that cervical stenosis with endometriosis is not too uncommon.

4. The author feels that all too frequently the true diagnosis is overlooked through inadequate history and pelvic examination, and unnecessary surgical procedures are performed.

To Section or Not to Section—Controversy—Controversy about the routine microscopic examination of every fragment of tissues removed by the surgeon seems to have been precipitated by several factors. Some of these factors probably are related to the charges made by members of the American College of Surgeons about ghost surgery, unnecessary surgery, and fee-splitting, charges that have sired and brought to fruition many stories tending to besmirch the whole medical profession because some doctors have sinned. The oldest and strongest emotion of man, fear, seems to have seized us and to have created in the minds of many a desire to hedge ourselves with more stringent rules and regulations. Tissue committees, for example, may have been born of this fear.

It is not that we should fail to make every reasonable effort to promote higher standards for our hospitals and their staffs; it is not that the profession should hesitate to police its own members; it is not that the "tissue committee," for example, is anything other than an admirable means of upholding and of raising hospital-and-staff standards—of policing ourselves in an effort to avoid the sins we have mentioned. It is that, through over-enthusiasm, misunderstanding, or for some less obvious reason, the matter of probing for sins may be carried to ludicrous as well as expensive depths.

It is a matter of record that the Joint Commission for the Accreditation of Hospitals believes only that every single piece of tissue removed at operation should be sent to the laboratory. The Commission has never said, so far as we know, that every piece of tissue must be sectioned, but believes that the hospital's staff should adjudicate this question and formulate its

own rules in this matter. The Commission states that the pathologist should acknowledge each and every piece of tissue in such a way as to legally protect the hospital, but that in the case of a considerable list of tissues microscopic examination need be made only at the discretion of the pathologist. A list furnished by the Joint Commission contains twenty-five tissues and objects that fall in the category under discussion.

Members of the medical profession, in the main, are honest men and women who will not sanction the removal of normal organs or tissues for a fee. Most of them are proud individuals who are as desirous of maintaining an honest standard of practice as are those who formulate our rules and regulations. Very few of our doctors merit the scathing denunciations that popular writers have heaped upon the profession—for a price. Furthermore, most members of our profession are sympathetic with the public who must pay a high price for good medical care. They would not want to have their patients "stuck" with an extra fee for a useless pathologic examination, whether the fee be large or small. They are satisfied, however, with any fee for an examination that is useful and necessary. If the fee charged for an unnecessary examination happens to be passed on to the patient's insurance carrier, money that should be available for increased coverage or for more realistic fee schedules is thereby wasted.

The staff of each hospital should accept the invitation of the Joint Commission on Accreditation of Hospitals to adjudicate the question of which tissues must be routinely examined microscopically and which ones may be sectioned or not, depending upon the expert opinion of the pathologist.—*Ed., Nebraska State M. J., March '55.*

MECHANICAL BASIS OF LOW BACK PAIN

T. J. BENDER, JR., M. D., F. A. C. S.
Mobile, Alabama

Without elaborating on the many causes of low back pain, I have a few generalized remarks to make which, I believe, offer a simple and logical approach to the more common cases of low back pain that we see from day to day.

The basic causes of low back pain are many. The mechanical causes are few but these constitute well over ninety per cent of the cases that we see. Of these, the vast majority are due to injury to an intervertebral disc, though a much smaller per cent of the cases are complete posterior extrusions with resulting root pressure. Regardless of the etiology, as long as it is mechanical, the general course of treatment is the same.

Without too much difficulty the mechanical cases can be differentiated from the infectious cases, new growths, etc.

The history offers considerable information. There is usually a story of forceful hyperextension, as in lifting a heavy weight, or opening a window that is stuck. Repeated episodes follow for a period of months or years until eventually the attack is accompanied by pain radiating down one of the lower extremities.

The most striking mechanical factor to be learned from the history is that extension of the lumbo-sacral spine increases pain, whereas flexion reduces it.

Common related examples are:

1. Sleeping on the abdomen against sleeping on the side.
2. Sitting erect *vs.* knees crossed or propped up.
3. Bending over a wash basin causes pain but not if the knees and hips are flexed.
4. Lifting a load at or about the waistline causes pain, as does working with the hands above the head.
5. When symptoms are acute, sneezing causes pain unless the knees and chest are approximated.
6. Other things which aggravate symptoms are dancing, prolonged standing, sitting in a theater, rising from sitting position, and driving a car.

Read before the Association in annual session,
Mobile, April 16, 1954.

The Examination:

Look for:

1. Deformity.
2. Increase or decrease of normal curves.
3. Presence of pelvic tilt.
4. Spasm of the large erector spinal muscles with resulting list.

Palpation:

Deep pressure over a spinous process of the lumbar spine will cause pain in mechanical injuries. Percussion here will cause pain in a destructive lesion but not in a mechanical one. Over the sacrum it will cause pain in mechanical lesions of the lumbosacral joint, but will not cause pain if the pathology is intrapelvic.

Motion:

Motion in any direction causes pain in destructive lesions. In mechanical lesions only extension causes pain but extremes of flexion cause pain due to the pull of spasm of the extensor muscles.

Measurements:

Many people have a short leg without knowing it. This causes a pelvic tilt, laterally, and is a potential source of pain. They commonly complain that they know one shoulder is higher than the other.

Neurological:

This will be negative unless there is presence of root pressure.

Babinski and ankle clonus should be checked to rule out an upper motor neurone lesion.

X-Ray:

This is most valuable in demonstrating destructive lesions but not so useful for demonstrating mechanical lesions.

In ruptured disc cases look for:

1. Narrowing of the intervertebral space.
2. Subluxation of the facet joint of the lumbosacral joint with:
 - a. Impingement of the 1st sacral superior facet on the inferior vertebral notch of the 5th lumbar vertebra with resulting hypertrophy of the sacral facet which has become weight bearing, and osteoporosis of the inferior facet of the L5, which has lost its

weight-bearing function.

For a practical approach to treatment of the common type just remember these points:

1. It is an extension injury and extension cause pain.

2. The large strap muscles, which are extensors of the lumbar spine, are in spasm. The spasm itself causes pain and also extends the spine, which causes more pain, more spasm, etc., into a vicious cycle—pain spasm—pain regardless of what the original cause of the pain was.

Break into this cycle anywhere and you get relief of symptoms:

1. Manipulation by the doctor is a valuable weapon when it is preceded by an adequate investigation to determine that it is first a mechanical lesion and not a destructive one. It is my opinion that manipulation is a valuable therapeutic measure and we are neglecting our profession if we do not familiarize ourselves with it.

Two simple manipulations are used:

1. Gentle but forceful flexion of the lumbar spine to counteract the spasm of the extensors.

2. Torsion of spine to left and right to counteract spasm of the rotation group of muscles.

Exercises:

Remember that the erector spinal muscles extend the spine and the hip flexors tilt the pelvis forward and extend the spine.

The abdominal muscles and the gluteal muscles tilt the pelvis backward and thus flex the spine.

Medication:

Opiates for pain and relaxation.

Intravenous Tolserol is given at the time of preliminary examination, but its action is short-lived. We formerly used oral Tolserol in graded doses thereafter. It was found, however, that Mephate, which is a combination of mephenesin and glutamic acid, appears to have much longer action. We now use four Mephate capsules every 4 hours during the waking hours. This gives considerable relaxation of muscle spasm.

Mechanical Support:

Plaster casts and braces are reserved for those patients who lack the ability to obtain or maintain satisfactory postural positions.

The patient must be taught to live twenty-four hours a day with the extension of the lumbosacral spine reduced to a minimum. This requires instruction in:

1. Standing—in the position of forward attack—never in the military position of attention. No high heels, as this throws the base of support forward and thus the lumbar spine must extend to keep the person from falling forward.

2. Bending—flex the lumbar spine, then squat by flexing hips and knees.

3. Sitting—well back in chair with knees higher than hips. Audience has knees crossed for comfort.

4. Reclining—hard bed or even flexion of hips and knees. Never sleep on abdomen.

5. Driving—seat well forward, never slump.

The really acute and severe case must be hospitalized for traction, with hips and knees flexed, until it quiets down, then is treated on the regimen already outlined. All mechanical cases of low back pain deserve a trial at conservative treatment and only when this fails is surgery indicated. It is my opinion that we should be slow to operate but when disc surgery is done this segment is no longer normal in any respects. It is unstable and should be fused with a generous bone graft.

1457 Spring Hill Avenue.

Cancer of the Rectum and Rectosigmoid—There is no such thing as a silent cancer of the rectum or rectosigmoid. On the contrary, symptoms are early and, in almost every instance, profound enough to be noticed and worried about by every patient except maybe those in mental institutions. These early symptoms are those of irritation of the bowel, manifesting itself in diarrhea, and bleeding from the anus. The late symptoms of progressive constipation or alternating constipation and diarrhea, or obstruction, or perforation or wasting, etc., are interesting, and of course make the diagnosis apparent without even a physical examination. *But in every such case either the patient or the physician ignored earlier symptoms.*

The diagnosis of carcinoma of the rectum or rectosigmoid is the easiest to make of all the internal cancers. In over 50 per cent of the cases it requires only a rectal examination, and in 100 per cent of the cases it requires only the use of an anoscope or sigmoidoscope with the biopsy forceps. In many instances either of these latter procedures can be done at the initial visit without preliminary cleansing of the lower bowel. If negative, the procedure should be repeated later after the lower bowel has been adequately prepared.—Conger, J. M. A. Georgia, Jan. '55.

Cancer of the Larynx—As carcinoma of the larynx tends to remain localized within the larynx and neck, few if any lesions should be regarded as inoperable because complete cancer surgery offers the patient a chance to live and, failing this, the greatest possible palliation. Palliative irradiation therapy leaves the patient with a tracheotomy and a necrotic throat requiring continuous nursing care. Conversely, with a palliative laryngectomy, there is a chance for cure; the disease will be removed from the food and air passages, and without the larynx roentgen therapy will be more effective against recurrences. Failing cure, the laryngectomized patient has a far more gentlemanly death than the tracheotomized irradiated patient who dies sloughing and spitting foul necrotic carcinoma.

1. Increasing age is to us a greater indication for surgery than it is a contraindication. In this series we operated upon 21 patients in the eighth and ninth decades of life with no operative deaths. In our opinion these patients survive surgery as well or better than they do irradiation. Hence, in the aged the indications for cancer surgery remain unchanged with the possible exception that we might favor irradiation therapy for a small freely movable lesion on the free border of the vocal cord. Again, the more extensive lesions are a contraindication to irradiation therapy and are an indication for surgery. In Florida, we see an increasing number of these elderly patients. They love life and enjoy their lives more when they have a chance to live.

2. Complete fixation of the cervical lymph nodes is a contraindication to surgery.

3. Invasion of the platysma with dimpling of the skin is probably a contraindication to surgery because when this has occurred, the lesion has probably extended beyond the reach of a neck resection.

4. Distant metastases rarely occur, but if they are definitely present, they may be a contraindication, though laryngectomy may still offer palliation.

5. Bilateral movable metastatic nodes, involvement of the jugular vein and involvement of the vagus nerve are not contraindications to surgery. Involvement of the carotid artery may not be a contraindication to surgery. We have resected one carotid artery and attribute the absence of complications to the preoperative block of the cervical sympathetic nerves and the patient's age of 55. Otolaryngologists, however, are resecting and reconstructing the carotid artery.

6. Annular lesions of the hypopharynx and upper portion of the esophagus may be within the reach of surgery. We have performed one laryngectomy-pharyngectomy, upper esophagectomy and neck resection with a secondary reconstruction of the esophagus. The patient is apparently cancer-free 15 months postoperatively.

We do not like to leave a patient to die. In the large lesions we believe that if there is the slightest possibility of resecting the lesion, complete cancer surgery is the only treatment.—*Farrior et al., J. Florida M. A., Feb. '55.*

Malpractice Suits—The rising premiums for malpractice insurance continue and there has been at the same time a decrease in the number of insurance carriers who will offer this coverage. No physician can brush off the matter as one of little concern to him. Freedom from suits or threat of suits in the past does not confer immunity from such action. The problem is one which touches every doctor who is advising or treating a patient.

Several factors are in operation to account for the increasing incidence of malpractice suits. No doubt the psychological outlook—a sign of the times—that many of the population are owed something for nothing is a factor. This common attitude to get anything one can for free, by hook or crook, represents a progressive moral deterioration of the populace. Another factor is probably an increasing tendency to make big business "pay,"—big business here being the insurance company which pays the judgment. No doubt this represents the attitude of many on the juries which give verdicts for the plaintiff. The sensational magazine articles, of the type entitled "Some Doctors Ought to Be in Jail," probably color the reactions of some jurymen. Finally, the desire of many defendants "to settle out of court" to avoid publicity influences lawyers to take some cases for malpractice suits which they might not otherwise take. Undoubtedly attorneys would not take some cases of uncertain justification if they knew they would have to fight them out in court.

It is the unwillingness of doctors to fight out the malpractice suit which is the one factor doctors can control. A fight in the majority of cases would make attorneys eye proposed suits with a lot more caution, and this alone might break the back of this growing threat to practice. One state society at least has undertaken to control this factor. The Colorado State Medical Society put into effect one year ago certain rules and regulations concerning malpractice claims and suits.

The Medicolegal Committee of the Colorado State Society set up under the Constitution has the power to make rules for the investigation of claims or suits against members of the Society. The Committee may delegate its authority to referees it names in any component society. The rules provide that any member of the Society sued or threatened with a suit shall fill out special blanks and mail them to the Executive Secretary. If he fails to do so within ten days he forfeits aid from the Medicolegal Committee. Furthermore, if any member learns of a threatened suit against a member of the profession it is his duty to report it at once to the Executive Secretary or to the Chairman of the Medicolegal Committee. Also any member of the Society must, if summoned, appear before the Committee to give whatever knowledge he may have of the case under question.—*Ed., J. Tennessee State M. A., Feb. '55.*

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THE MONTH IN WASHINGTON

A bill that is not a part of the official Eisenhower health program is causing a stir in Congress.

The bi-partisan measure would provide \$90 million dollars to be spent over three years to help construct and equip non-federal medical research and laboratory facilities. Often in the past five years efforts have been made to get Congress to set up various huge new research programs pointed at one disease and calling for direct federal operation of the project. Without exception they have been turned down, Congress deciding that the existing National Institutes of Health are the proper vehicles for such all-federal research.

The bill that Congress now is interested in takes a different approach. It would have the federal government "get in and get out," a system used successfully in the Hill-Burton hospital construction program. Grants would go to nonprofit hospitals, medical schools, medical laboratories and like institutions, and the institution itself would have to match the federal money. Once the particular construction had been completed and equipped, the federal government would relinquish all control or influence over the project, as under Hill-Burton. Unlike the Hill-Burton plan, the grants would go directly from the U. S. to the project.

The Senate sponsors of this bill carry more than ordinary weight within their own parties. They are Senator Lister C. Hill (D., Ala.) who not only is chairman of the Labor and Public Welfare Committee but also heads the subcommittee that passes on most health appropriations, and Senator Styles Bridges (R., N. H.). The latter has added prestige as chairman of the Senate Republican Policy Committee. The House sponsor is Rep. Percy Priest (D., Tenn.), chairman of the Interstate and Foreign Commerce Committee, which, like Senator Hill's committee, is in charge of most health bills.

Introduction of specific bills to implement the President's own health program disclosed a few more details of what he wants from Congress, but generally the suggestions are the same Mr. Eisenhower offered in his State of the Union Message, his Health Message and other earlier statements.

The reinsurance bill, again the center of controversy, is much the same as last year's bill but singles out certain areas where the administration believes reinsurance would be particularly helpful. They are the coverage of rural families, greater protection for low-income families (including home and office calls), and the insurance of major medical costs. The new bill also makes some technical changes designed to assure that the federal government does not intend to regulate the insurance industry.

The bill for federal guarantee of private mortgages on health facilities follows the general lines of last year's Kaiser-Wolverton plan but makes some concessions. For example, the new bill drops the requirement that a facility has to devote most of its services to prepayment plan patients.

As introduced, the Defense Department's bill for more medical care for military dependents had no surprises at all. It is exactly the same bill offered last year. Efforts had been made to write in some compromises but these were given up for the time being. The major question, as it has been from the start, is whether most dependents are to get their medical care from an insurance plan such as is proposed for other U. S. employees and their dependents, or are to be cared for by uniformed physicians in military hospitals.

Other parts of the President's program, now up for action in Congress, propose more money for the medical care of public assistance recipients, grants to states for training practical nurses and for more advanced nurse training, and more research and training in mental health.

A surprise Eisenhower request is that this country lift its statutory restriction on the amount of money U. S. may contribute toward the World Health Organization. Under present law the U. S. may not pay more than \$3 million annually. The administration wants this ceiling lifted to \$5 million.

Congress currently is deciding how much money to allow for health programs for the next fiscal year, starting July 1. Although the administration requested for Mrs. Hobby's department only about what it is spending this year (\$2 billion), the budget for the Public Health Service was upped about \$77 million. Most of the research institutes are scheduled for substantial increases.

CONTEMPLATED PLAN 1955 POLIOMYELITIS VACCINE PROGRAM

Official representatives of four leading national medical and health organizations and the federal government recently met with the National Foundation for Infantile Paralysis to consider nationwide administrative policies relative to the distribution and administration of the supply of poliomyelitis vaccine being purchased by the National Foundation for a possible vaccination program this spring.

Represented were the American Medical Association, the American Academy of Pediatrics, the Association of State and Territorial Health Officers, the American Public Health Association, and the U. S. Department of Health, Education and Welfare.

The deliberations of this group were predicated on the assumption that the evaluation report on the 1954 poliomyelitis field trials to be issued about April 1 by Dr. Thomas Francis, Jr. of the University of Michigan would justify the licensure of this product by the National Institutes of Health, U. S. Public Health Service. Rapid application of the poliomyelitis vaccine before the closing of schools and the onset of the peak polio season would be desirable, to give protection to more children.

The consensus of the meeting was as follows:

1. That if and when licensed by the National Institutes of Health, the vaccine will be supplied by the National Foundation to state health officers in amounts sufficient to provide for the vaccination of
 - a. Children who participated in the vaccine field trial in 217 field trial areas in the United States in 1954 but who did not receive vaccine at that time.
 - b. All children enrolled in the first and second primary grades of all public, private and parochial schools in the continental United States, Alaska and Hawaii in the spring term of 1955.
2. The plan of administration of the vaccine in any state or territory will be the administrative responsibility of the respective state or territorial health officer and will be worked out by him in cooperation with the state or territorial medical society and state or territorial education officials.
3. The 1955 vaccine program has been initiated by the National Foundation for the

purpose of making possible early and widespread application of a newly established preventive measure against paralytic poliomyelitis; after completion of this program, the National Foundation will not participate in the production, distribution or administration of poliomyelitis vaccine.

4. The children in the first and second grades of primary school were selected for the program because of the high incidence of paralytic poliomyelitis in this group and their accessibility as organized units within the schools, keeping in mind the limitations on the amount of vaccine to be available for this program.

5. It is expected that additional vaccine, equivalent or greater in amount than that contracted for by the National Foundation, will be obtainable through usual commercial channels for the use of private physicians for their patients.

6. Vaccine for use in 1955 will be administered on the same dosage schedule as was followed in the 1954 field trial, namely, 1 cc. of vaccine in each of the three doses, given intramuscularly, the second inoculation one week after the first and the third inoculation four weeks after the second.

7. Administrative procedures for the giving of the vaccine will be as simple as possible and will not require extensive record-keeping. Except in those states which wish and are in a position to conduct follow-up studies, no extensive nationwide evaluation such as was done in the 1954 field trial is contemplated.

8. Upon request from state health officers, the National Foundation will supply educational and other printed materials for use in the conduct of the vaccination program and will provide local cooperation and assistance through its chapters in all counties as requested by local health authorities.

WHY FEDERAL HEALTH INSURANCE ISN'T THE ANSWER

Remarks of Edwin J. Faulkner, President Woodmen Accident and Life Company, Lincoln, Nebraska, to the House of Delegates, American Medical Association at Miami, Florida, November 29, 1954

It is with deep appreciation of the honor that you have done me by asking me to speak to you on an important subject that I appear before this House of Delegates. Equally I am complimented to follow to

your platform the distinguished and charming Secretary of Health, Education and Welfare who has given you an able and lucid exposition of the Administration's proposal for a plan of Federal Health Reinsurance. Most of all, I recognize how important it is that you, the policy-determining body of the American medical profession, be afforded the opportunity to consider all of the facts and all of the arguments, both pro and con, that should be weighed in an objective analysis of this potentially far-reaching program.

You and I are intimately concerned with this proposal—you, because the members of your profession provide the principal health care services; I, because my business is the financing of many of those services. It is appropriate that such a plan be tested against our special knowledge gained from daily contact with the problems that the proposal seeks to alleviate.

It is a priceless part of the American heritage to be able to hold and to express one's own opinion on matters of public concern. History teaches that the public good is best served when all points of view are put forward in a frank, vigorous and constructive way. No one in American public life today recognizes this more clearly or is more adept at synthesizing the best of differing views than the distinguished gentleman who resides at 1600 Pennsylvania Avenue. Painful though it may be for many of us to oppose on even one measure an Administration that we greatly admire, it would seem poor citizenship not to speak out against a plan that we sincerely believe would be foredoomed to disappoint its proponents.

We have been profoundly impressed and encouraged by the President's oft repeated endorsement of voluntary private health insurance, by his opposition to compulsory insurance or socialized medicine, and by his rejection of government subsidy for voluntary plans. The announced principles of the Administration are those in which we believe as together we strive for the common objective of the best possible health for all Americans within the essential framework of democracy and private enterprise. We believe that the President was right when, while endorsing voluntary health insurance as the best way for most Americans to provide themselves with re-

sources to obtain good medical care, he pointed out, in his message to Congress on January 18, 1954, that it is not necessary for government to go into the insurance business to furnish protection not now provided by private organizations.

Proper evaluation of the Federal Health Reinsurance proposal must be premised on a recognition that the problem of financing health care costs is divisible into two major parts.

First, insurance can provide for the financing of health care costs for the great portion of the American people who are insurable, but it is fallacious to advocate or even suggest that the insurance approach is adaptable to the needs of all the people.

The second part of the problem has to do with those people who cannot be reached by insurance.

Since most of the American people are insurable and have access to the many forms of health insurance now so generally offered, let us first consider briefly the problem of the minority. Because of impaired health, some people are not now insurable. There are some who, though satisfactory insurance risks otherwise, have not the means to pay the costs of insurance protection. Their needs are real and must be met by appropriate methods other than insurance.

The risks of those who suffer from impaired health are not necessarily beyond the competence of the insurance business. Many people who suffer from some impairment are now insured under group plans or on an individual basis at a higher than standard premium or by appropriate adjustment in insurance policy provisions. As insurers further develop substandard underwriting, the number of impaired risks ineligible for insurance will continue to be reduced.

The problem of the indigent is of a distinctly different kind. The indigent do not have the funds with which to purchase insurance. The health care needs of these people must, of course, be met. Their needs should be met in the future, as they have in the past, by voluntary assistance and from public funds, openly applied and properly controlled but with no use of compulsion or of insurance methods as a disguise. Direct assistance is the most economic and efficient way to meet the needs of the indigent. Assistance agencies exist for this

purpose at every level of government. To attempt to insure the indigent would place a heavier burden on the public, and would impair, if not eventually destroy, voluntary insurance.

Some people who require public assistance at the time of illness have failed to appreciate their need for protection. As more and more such individuals become convinced that protection against health care costs is an essential element in their economic security, they will buy it.

We have touched upon the problem of the indigent and the uninsurable in order to help define the area in which it is suggested that a Federal Health Reinsurance plan might be helpful. Without government subsidy to make insurance available at less than cost, a departure not now contemplated by the plan, Federal Health Reinsurance would contribute nothing to the financing of the health care costs of those not presently eligible for insurance.

Let us now consider what contribution the proposal might make to the development of better and more widely held health insurance among those who are insurable. The heart of the Administration proposal is a reinsurance fund, capitalized with Federal moneys and initially operated at public expense, designed to encourage insurers to broaden benefits and areas of service by providing reinsurance of three-fourths of "abnormal losses" sustained by the approved plans reinsured in the fund. It is the hope of the proponents of the proposal that if insurers can be protected against a major part of abnormal losses accruing on new and experimental types of coverage the process of experimentation and liberalization will be expedited.

Many of the characteristics of the plan are in keeping with the philosophy of private enterprise. It seeks to encourage pre-paid medical care through non-governmental agencies. The proposed reinsurance would be entirely voluntary. It does not provide governmental subsidization of benefit payments. It would be available to all types of private insurers. It employs the coinsurance principle.

Advocates of the measure have noted the considerable contribution made to the development of life insurance, fire insurance and other lines by adequate reinsurance facilities, and noting further the relatively

small volume of health reinsurance business done have argued that expanded reinsurance facilities in this field would have a stimulating effect. Such a conclusion can proceed only from a misunderstanding of the essential function of reinsurance, which is the spreading of risks larger than the initial insurer is willing to carry. It is true that in life insurance, for example, reinsurance makes it possible for an insurer to assume larger risks than it could without reinsurance. But in health insurance the situation is different. Here there is almost never a concentration of risk large enough to require spreading a potential loss. Even with catastrophic or major medical expense insurance which presents the maximum amount of risk usually found on one life, the insurer's potential loss is seldom as much as \$10,000, a sum well within the capacity of all but the smallest insurers to carry alone.

The trifling volume of health reinsurance business now being done reflects not inadequate reinsurance facilities in the private market but an absence of need for reinsurance. In point of fact, establishment of a Federal Health Reinsurance fund would bring government into direct competition with private reinsuring companies that are serving the market adequately. The proviso that Federal reinsurance will not be offered when private reinsurance is available at comparable terms and rates means little when it is remembered that the Federal plan would be capitalized with public moneys, initially subsidized for operating expenses, and would pay no taxes.

In presenting the proposal to Congress, the Department of Health, Education and Welfare was entirely forthright in pointing out that the success of the plan would depend on the willingness of insurers actually to make use of it and to assume new and broader risks. It has been very difficult for me, as an operating insurance executive, to discern any advantage that would accrue from using the plan. Private insurers have showed no disinclination to experiment and to assume broader risks without Federal stimulus. The record of the business proves this. New and better types of coverage are placed on the market, however, only when the insurer believes that its plan is sound and can be underwritten without loss. Under such conditions the insurer sees no need for reinsurance, particularly when such re-

insurance necessarily implies compliance with Federally imposed standards of coverage, premium rate and company practice. Reputable insurers do not knowingly offer a form on which abnormal loss is anticipated. To do so would jeopardize solvency and breach the trust owed existing insureds. It seems obvious that the Federal fund would have the opportunity to reinsure but little good insurance. Poorly underwritten insurance would quickly drain the fund. I can say to you in all sincerity that, in spite of very wide personal inquiry during the last ten months, I have yet to have one insurer indicate to me an enthusiastic desire to use a Federal Health Reinsurance fund.

Those who oppose the establishment of a Federal Health Reinsurance plan believe it would raise false hope for a more rapid expansion of health insurance while contributing nothing to the realization of that hope. Government reinsurance of health insurance plans would introduce no magic into the field of financing health care costs. Reinsurance can distribute risks among insurers just as insurance distributes them among policyholders, but no matter how far this distribution is carried it must be sound to succeed. Reinsurance does not increase the ability of the insurer to sell protection to the unwilling buyer. Reinsurance does not reduce the cost of insurance. Reinsurance does not make insurance available to any class of risk or geographic area not now within the capabilities of voluntary insurers to reach. Reinsurance has been proposed to expand insurance effectiveness, yet the rapid development of health insurance has been achieved with little recourse to the already widely available reinsurance facilities and there is no evidence that greater progress would have resulted from a more extensive use of reinsurance.

Beyond the futility of the proposal, we believe that its enactment would entail the following undesirable consequences:

(1) With its failure to achieve its expressed objectives without Federal subsidy of benefit payments, pressure would be intensified for such subsidization. To the extent that the plan might encourage extension of health insurance to uninsurable risks, excessive losses would result, necessitating subsidization.

(2) As far as is currently known, the measure provides only the bare framework

of a plan, incorporating a very broad delegation of powers to the executive branch of the government. While we would have no fears for their wise exercise by this Administration, there are no guarantees for the future.

(3) To the extent that the Federal Reinsurance plan is operative, state supervision of insurance is superseded.

(4) Insurers availing themselves of the facilities proposed by the plan would become subject for the first time to government regulation of premium rates. The public interest is best served by preserving the competitive features of the health insurance business.

Since the pattern of medical economics is changing rapidly, complete flexibility as to premium rates is necessary if insurers are to keep abreast of developments and have the freedom needed to experiment.

Perhaps at this point it would be well to pause and inquire whether this measure or any other Federal legislation is needed to stimulate the continued rapid expansion of voluntary health insurance. That such is not the case is suggested strongly by the amazing record of the private insurers. In 1939, only 6 million Americans were insuring themselves against the costs of hospitalization. The total has skyrocketed to 103 million people as of November 1, 1954, according to the recently released survey of the Health Insurance Council. Insurance for the costs of surgery protected 7 million persons in 1941. Eighty-eight million are now insured for surgical benefits. Insurance against the costs of medical care other than surgery had a later origin than hospital and surgical insurance, but 47 million Americans now have medical expense policies. At the end of 1953, three-fifths of the civilian labor force, some 37,887,000 persons, had insurance against loss of earnings because of sickness or accident. Major medical expense insurance, the so-called catastrophic coverage, introduced as recently as five years ago and still in its experimental stage, is now offered by more than 40 insurers who protect in excess of 1,500,000 people with this type of coverage. This is an increase of nearly 220 per cent since December 31, 1952.

Qualitative improvement has kept abreast of quantitative expansion. Through open, free and keen competition among

more than 800 insurers, benefits have been broadened, exclusions and limitations have been narrowed or dropped, and new types of coverage and new methods have been adopted for distributing protection more economically. As the insurers have gained experience they have reduced the segment of the population ineligible for insurance because of age, occupation, impairment, or place of residence. Today, age *per se* is not a bar to insurance. Whether or not our senior citizens secure protection is largely a matter of their willingness and ability to pay the cost of insurance. Those disqualified by physical impairment are growing fewer as substandard underwriting techniques are adopted and as group insurance, which does not consider individual insurability, spreads rapidly. Through new merchandising methods, utilizing farmers' cooperatives, R. E. A. groups, and aggressive individual solicitation, the farmer and inhabitant of village and hamlet have private insurance readily available. Statistics which show that rural residents have made relatively less use of voluntary health insurance have been cited to establish the contrary. Such a conclusion, however, overlooks the fact that voluntary insurance requires a willing buyer as well as a willing seller. In rural areas the problem is not to find the seller but to convince the buyer. The tradition of home-care, with lower attendant medical costs and consequent lesser need for insurance, is strong in many rural areas. Coverage of the rural risk is largely a selling problem.

Advocates of the "we must do something now" school of thought frequently quote statistics showing that, in 1952 for instance, insured benefits covered only 17 per cent of some \$9.4 billions of private individual expenditure by our population for all forms of medical care. The implication of an 83 per cent gap in coverage is unfair to voluntary insurance because it assumes that the entire private medical expenditure could or should be insured. Such is not the case. A very substantial part of the nation's health bill, running into billions of dollars, is for routine medical and dental care, for drugs and appliances, items that are much better financed as a part of the family budget than insured. Insurers well know what expensive folly it is for the policy-holder to attempt to underwrite the first dollar of medical expense or of wage loss. To do so is to

indulge in a sort of "dollar swapping" for which the insurer must charge for the cost of administration. Insurers know also the importance of insuring less than the entire cost of health care services as a restraint against extravagance and over-utilization. This is accomplished by making the insured a co-insurer for a portion of his expenses. While, of course, there is still a gap between insured benefits and insurable values, that gap is being closed as voluntary insurance-in-force increases at a far more rapid rate than the nation's expenditures for insurable health care.

We have been told that time is running out for those who believe in the voluntary way. Certainly we can agree that not a single day should be lost in providing sound protection for every insurable American, but equally we should beware of tactics of desperation. The American people have clearly indicated their preference for voluntary private insurance by their great and growing purchase of it. If we can believe the surveys of the National Opinion Research Corporation, the spectre of compulsory health insurance no longer looms so large. As reported to the American Hospital Association two months ago, surveys taken in 1940 showed that 60 per cent of the population favored government compulsory health plans while recent polls show this figure has dwindled to 19 per cent. Doubtless the performance of voluntary insurance has strongly influenced this trend.

This is not to deny that government at all levels has a vital part to play in improving the health of our people. Government can help to teach all Americans that sound insurance against health care costs is a vital element in every family's budget. Government can encourage purchase of voluntary insurance by providing tax incentives. Government can stimulate research to discover the cause and cure of disease. It can foster a prosperous economy and the high living standards that are a basic determinant of health levels. Government, particularly state and local, has an obligation to the indigent. State government has the duty of policing insurance operations.

I need not remind you doctors of the tremendous responsibilities of your profession. The success of any insurance approach depends on your vigilance and cooperation in eliminating over-utilization and helping reduce the total burden of health care costs.

It is encouraging that you are studying fee lists, adjusted to local conditions, as suggested by Dr. McCormick. Such action will engender a greater stability of medical care cost, permitting voluntary insurers to push ahead more surely and rapidly with broader forms of coverage. You have already done much to stabilize medical costs. You have encouraged a wider knowledge of what these costs are and have established grievance committees for the prompt correction of mistakes and misunderstandings. While the remaining problems are complex, we know that you will press forward to their ultimate solution.

We insurers are challenged by the vastness of our opportunities as we humbly recognize our obligations to the American public. We are in the forefront of the ideologic conflict between those who hold that the highest welfare of mankind lies in his own freedom, initiative and responsibility, and those who hold that man's welfare must come from the state. As we succeed in further developing health insurance as a free, voluntary and useful operation, we will have preserved the fundamental features of our American heritage. With your help and the cooperation of government, we are confident of the ability of voluntary insurers to bring a satisfactory measure of protection to practically all of our people.

AMERICAN COLLEGE OF SURGEONS

SECTIONAL MEETING
NASHVILLE, TENNESSEE
APRIL 4-6, 1955

Scientific reports, symposia, hospital clinics, panel discussions and films on current surgical problems will be presented by eminent surgeon-teachers at the three-day Sectional Meeting of the American College of Surgeons in Nashville, Tennessee, April 4 through 6. All medical representatives are invited to attend. Dr. James A. Kirtley, Jr., Nashville, is Chairman of the Local Committee on Arrangements. Headquarters for this meeting will be the War Memorial Auditorium.

Subjects to be covered include an extensive symposium on Management of Auto Accident Victims, with discussions by representatives of all specialties likely to be involved in such cases, panel discussions on Bile Duct Injuries and Peptic Ulcers, Cardiovascular Surgery, and a Symposium on Cancer.

PROGRAM OF THE ANNUAL SESSION
OF THE
MEDICAL ASSOCIATION OF THE STATE OF ALABAMA
MONTGOMERY
APRIL 21, 22, 23, 1955
THE WHITLEY HOTEL

GENERAL INFORMATION

All sessions of the Association and exhibits will be at the Whitley Hotel, convention headquarters—the sessions in the Blue and Gray Room, the exhibits in the State Room.

The maximum time consumed by essayists should not exceed twenty minutes. This time limit, however, does not apply to invited guests. It is suggested that the salient features of papers be presented within this time, reserving the complete elaboration for publication in the Journal of the Association.

All papers read before the Association should be deposited with the Secretary when read; otherwise, their publication may be delayed.

Papers will be called in the order in which they appear on the program. Should the reader be absent when called, his paper will be passed, and called again when the program is concluded.

REGISTRATION

The registration desk will be on the lobby floor of the hotel near the entrance to the State Room. Be sure to register.

THE FIFTY YEAR CLUB

According to custom, physicians who graduated fifty years ago will be honored by the Association at this meeting. Their names appear in the program.

HOST TO THE ASSOCIATION

The Montgomery County Medical Society
OFFICERS

A. E. Thomas, President

Cobb Laslie, Vice-President

W. L. Smith, Secretary-Treasurer

BOARD OF CENSORS

J. M. Barnes, Chairman

Luther Hill W. A. Daniel, Jr.
Francis M. Thigpen Paul S. Mertins

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Commercial Exhibits

Luther Hill, Chairman

A. E. Thomas B. Frank Jackson, Jr.
Nace R. Cohen

Hotels

Leon Rosen, Chairman

Hugh B. Praytor Thomas H. Williams
R. R. McBryde Haynes C. Byrne

Publicity

Cobb Laslie, Chairman

William T. Brannon Douglas L. Cannon

Entertainment

J. Allen Jones, Chairman

Philip Burwell Harry Glazer
T. B. Hubbard, Jr. J. Sam Smith

**Reception Committee
for
Guest Speakers and Their Wives**

Dr. and Mrs. Luther Hill

Dr. and Mrs. John Cameron

Dr. and Mrs. T. C. Nolan

Dr. and Mrs. Hinton Waters

Dr. and Mrs. Jack Wool

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J. D. Perdue Mobile

State Health Officer

D. G. Gill Montgomery

**Delegates and Alternates to the American
Medical Association**

Delegate—J. Paul Jones Camden

Alternate—D. G. Gill Montgomery

(Term: January 1, 1954-December 31, 1955)

Delegate—E. Bryce Robinson, Jr. Fairfield

Alternate—B. W. McNease Fayette

(Term: January 1, 1955-December 31, 1956)

PROGRAM

First Day, Thursday, April 21

Morning Session

Blue and Gray Room

9:00 A. M.

Call to order by the President—

Joseph M. Donald, Birmingham.

Invocation—

Rev. Merle C. Patterson, Pastor, First Presbyterian Church, Montgomery.

Addresses of Welcome—

*Hon. W. A. Gayle, Mayor, City of Montgomery.
A. E. Thomas, President, Montgomery County Medical Society.*

PART I

REPORTS OF STANDING COMMITTEES

1. Medical Service and Public Relations—

J. O. Finney, Chairman.

Civil Defense: Louis L. Friedman, Deputy Director of Medical and Health Services, Department of Civil Defense, State of Alabama.

2. Maternal and Child Health—

Hughes Kennedy, Jr., Chairman.

3. Cancer Control—

John Day Peake, Chairman.

4. Postgraduate Study—

J. R. Garber, Chairman.

5. Mental Hygiene—

Jack Jarvis, Chairman.

6. Prevention of Blindness and Deafness—

Karl Benkwith, Chairman.

7. Tuberculosis—

Paul W. Auston, Chairman.

8. Physician-Druggist Relationships—

W. M. Salter, Chairman.

9. Anesthesiology—

Alfred Habeeb, Chairman.

10. Industrial Medicine—

D. O. Wright, Chairman.

11. UMWA Medical Care Program—

E. Bryce Robinson, Jr., Chairman.

12. Blue Cross-Blue Shield—

*J. P. Collier, Chairman.**J. E. Moss, Co-Chairman.*

13. Publishing Committee—

Douglas L. Cannon, Chairman.

14. Committee on Veterans' Affairs—

B. W. McNease, Chairman.

SPECIAL COMMITTEES

1. On Insurance—

J. O. Morgan, Chairman.

2. On the Coroner System—

J. A. Cunningham, Chairman.

3. American Medical Education Foundation—

H. G. Hodo, Jr., Chairman.

REPORTS OF OFFICERS

Secretary-Treasurer—

Douglas L. Cannon, Montgomery.

Vice-Presidents—

(1) Southeastern Division

S. W. Windham, Dothan.

(2) Northwestern Division

T. J. Payne, Jr., Jasper.

(3) Southwestern Division

W. R. Carter, Repton.

(4) Northeastern Division

Hugh Gray, Anniston.

The President's Message—

Joseph M. Donald, Birmingham.

PART II

SCIENTIFIC PROGRAM

1. *Lower Urinary Tract Obstruction in the Male Patient—*
SAMUEL P. MARSHALL,
Mobile, Alabama.
2. *Congenital Anomalies of the Gastro-Intestinal Tract—*
WILLIS J. POTTS,
The Children's Memorial Hospital,
Chicago, Illinois.
3. *Diverticulitis of the Cecum—*
THOMAS S. BOOZER,
Montgomery, Alabama.
4. *Diverticulitis of the Colon—*
JOSEPH L. BUTLER,
Birmingham, Alabama.



Afternoon Session

Thursday, April 21

2:00 P. M.

1. *Neurosurgical Management of Pain—*
GRIFF HARSH, III,
Birmingham, Alabama.
2. *Jaundice in Early Infancy—*
JOHN A. BIGLER,
The Children's Memorial Hospital,
Chicago, Illinois.
3. *A Rational Basis for the Treatment of the Toxemias of Pregnancy—*
ALLAN C. BARNES,
University Hospitals,
Cleveland, Ohio.
4. *Use and Abuse of Endocrines in Gynecology—*
ROBERT B. GREENBLATT,
Medical College of Georgia,
Augusta, Georgia.
5. *Current Advances in the Diagnosis and Treatment of Cardiospasm and Hiatal Hernia—*
HERMAN J. MOERSCH,
Mayo Clinic,
Rochester, Minnesota.
6. *Surgical Diseases of the Esophagus—*
HARRY J. TILL,
Montgomery, Alabama.

Second Day, Friday, April 22

Morning Session

Blue and Gray Room

9:00 A. M.

1. *The Patient's Attitude Toward Disease in Psychosomatic Illness—*
JAMES B. McLESTER,
Birmingham, Alabama.
2. *Isotope Techniques Useful in Diagnostic Procedures—*
KENNETH CORRIGAN.
Harper Hospital,
Detroit, Michigan.
3. *Physician Heal Thyself—*
A. V. WIEBEL, President
Tennessee Coal & Iron Division,
United States Steel Corporation,
Fairfield, Alabama.
4. **THE JEROME COCHRAN LECTURE:**
The Role of Medicine in The United Nations and in International Relationships—
CHARLES W. MAYO.
Mayo Clinic,
Rochester, Minnesota.
5. Recognition of the Fifty Year Club.
6. Announcement of Vacancies in the College of Counsellors.
7. Meeting of Counsellors and Delegates for the Purpose of Making Nominations to Fill the Vacancies in the College of Counsellors.

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Afternoon Session

Friday, April 22

2:00 P. M.

1. *The Medical Treatment of Hypertension—*
WOOD S. HERREN
Birmingham, Alabama.
2. *Myocardial Infarction in Younger Age Groups—*
LEON V. MCVAY, JR.,
Mobile, Alabama.
3. *The Use of Digitalis—*
JULIAN HOWELL,
Selma, Alabama.
4. *The Management of Digitalis Intoxication—*
CHARLES E. PORTER,
Lloyd Noland Hospital,
Fairfield, Alabama.
5. *The Surgical Management of Chronic Thyroiditis (Hashimoto's Disease)—*
DAVID HENRY POER,
Atlanta, Georgia.
6. *Medical Center Development—*
J. J. DURRETT, Consultant to the President for the Medical Center Development.
Birmingham, Alabama.
7. *Bone Tumors—*
JOHN D. SHERRILL,
R. J. W. HOBBS, and
ROBERT O. DENTON,
Birmingham, Alabama.

Last Day, Saturday, April 23rd

Blue and Gray Room

9:00 A. M.

Business Meeting of the Association sitting as the Board of Health of the State of Alabama:

- (1) Report of the Board of Censors;
- (2) Revision of the Rolls:
 - (a) County Societies,
 - (b) Counsellors,
 - (c) Correspondents;
- (3) Election and Installation of Officers.

Adjournment

& & &

THE FIFTY YEAR CLUB

Class of 1955

(To whom Certificates of Distinction will be awarded on Friday morning at the conclusion of the Jerome Cochran Lecture.)

Benson W. Booth	Shorter
Edmund R. Cannon	Vredenburgh
Burwell S. Carpenter	Fairfield
James A. Chapman	Alexander City
Kosciusko W. Constantine	Palm Beach, Fla.
Ezekiel H. Couch	Guntersville
Marvin Denton	Oneonta
Nathan C. Denton	Oneonta
Earle Drennen	Birmingham
Charles D. Feulner	Selma
James H. Flowers	Newton, R. F. D.
George L. Gresham	Opp
Robert L. Hill	Winfield
Warwick W. Klein	Altoona, Rt. 2
Edwin G. Little	Gadsden
Howard C. Morland	Birmingham
George A. O'Connell	Anniston
Milton C. Ragsdale	Bessemer
Charles E. Rhodes	Jefferson
Neil E. Sellers	Anniston
Lovick P. Shell	Abbeville
Albert G. Sims	Birmingham, Rt. 14
Percy B. Skinner	Fairhope
Samuel D. Suggs	Montgomery
William P. Sumners	Huntsville
Adrian S. Taylor	Bessemer, Rt. 2
George M. Taylor	Prattville
William E. Warren	Fort Payne

& & &

VACANCIES IN THE COLLEGE OF COUNSELLORS

Vacancies that will present in the College of Counsellors at this meeting of the Association are as follows and for the reasons set forth:

1st Congressional District—2. J. M. Weldon is to be elevated to Life Counsellor. R. D. Neal's first term of seven years has expired.

2nd Congressional District—1. Robert Parker's first term of seven years has expired.

3rd Congressional District—2. V. J. Thacker is to be elevated to Life Counsellor. Arthur Mazyck's first term of seven years has expired.

5th Congressional District—1. W. H. Riser is to be elevated to Life Counsellor.

6th Congressional District—1. W. J. B. Owing's second term of seven years has expired.

7th Congressional District—2. J. C. Gladney is deceased. M. S. Whiteside's second term of seven years has expired.

8th Congressional District—4. E. M. Chenault and Rayford Hodges are to be elevated to Life Counsellors; the second terms of seven years of J. C. Bragg and A. M. Roan have expired.

9th Congressional District—3. R. E. Cloud's second term of seven years has expired. The first terms of seven years of W. S. Littlejohn and E. Bryce Robinson have expired.

* * *

TECHNICAL EXHIBITS

State Room

The technical exhibits are always an important part of the clinical meetings. This year they will be unusually interesting and instructive.

A description of them follows.

Durr Surgical Supply Company Booths 1 and 2

Representatives from both of our stores, Montgomery and Birmingham, will be on hand to demonstrate many new items. Among these will be ultrasonic equipment, Burdick direct writing EKG units, small autoclaves for sterilizing hypo syringes and needles, Stille surgical instruments and a number of new items which will be of interest to the medical profession. You are cordially invited to visit our exhibit and see the many items on display.

G. D. Searle and Company Booth 3

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle products of research.

Featured will be VALLESTRIL, the new synthetic estrogen with extremely low incidence of side reactions; BANTHINE and PRO-BANTHINE, the standards in anticholinergic therapy; and DRAMAMINE, for the prevention and treatment of motion sickness and other nausea.

Abbott Laboratories Booth 4

Abbott Laboratories will display ERYTHROCIN, the antibiotic of wide range activity against "coccal" organisms; THRONOTHANE, Abbott's new non—"caine" topical anesthetic; BLUTENE, the non-hormonal oral drug for treatment of functional uterine bleeding; COVICONE Protective Skin Cream for protection against certain contact dermatoses; and SUCARYL, a non-caloric sweetener which has no aftertaste and is useful for diabetic and weight reducing diets.

Numerous other Abbott products—nutritional supplements, antibiotics, antihistamines—will also be exhibited.

Tablerock Laboratories, Inc. Booth 5

You are cordially invited to visit the Tablerock booth where you will find well-informed representatives who will be happy to supply you with information and answer any questions relative to Tablerock products. TABOREA, BISMUTH VIOLET and the newer forms of Rauwolfia serpentina will be featured.

Pfizer Laboratories Booth 6

You are invited to visit the Pfizer booth. TERRAMYCIN, CORTRIL, BONAMINE and TYZINE will be the highlights this year of a star-studded cast including the complete line of TESTED and PROVED Terramycin dosage forms and the Steraject line of injectable Penicillin and Combiotic preparations.

Ames Company, Inc. Booth 7

CLINITEST, for urine-sugar analysis, is standardized. This assures uniformly reliable results whenever and wherever a test is performed—office, ward, clinic, or patient's home. Standardization not only curtails error but saves personnel's time by elimination of preparing and mixing of reagents.

ACETEST for acetonuria, BUMINTEST for albuminuria, HEMATEST for occult blood, and ICTOTEST for bilirubin will also be on display.

Westwood Pharmaceuticals Booth 8

Westwood will display Gentia-Jel, the only effective gentian violet jelly you can prescribe for self treatment by the patient at home. Eliminates messy office treatments which often stain your furniture and clothing.

Lowila Cake, the only completely soapless skin cleanser, in bar form, available to your allergic or dermatitic patients whenever soap is contraindicated. Obtain a Lowila Cake from the Westwood booth for your own personal use.

Sandoz Pharmaceuticals Booth 9

Sandoz Pharmaceuticals cordially invites you to visit its display at booth 9. FIORINAL—a new approach to therapy of tension headaches and other head pain due to sinusitis and myalgia. PLEXONAL—Sandoz introduces a new sedative-hypnotic, Plexonal. This exhibit demonstrates that Plexonal is not just another sedative but is one developed on a new pharmacologic approach. The action of subthreshold doses of classic sedative agents are potentiated, and enhanced by ACYLANID—has all the advantages of digitoxin but the safety of whole leaf digitalis.

Pet Milk Company Booth 10

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets. A miniature "Pet" Evaporated Milk can will be given to all visitors.

J. B. Roerig and Company Booth 11

Physicians and their friends are cordially invited to visit Roerig's booth (11) where there will be highlighted the line of fine nutritional products, many of which Roerig has pioneered and which have a wide acceptance in the medical profession. VITERRA, VITERRA THERAPEUTIC, AM PLUS, HEPTUNA PLUS, OBIRON, OBIRON HEMATINIC, BONADOXIN, for the prevention of nausea and vomiting in pregnancy; ASF, Roerig's new antistress formula and ROETINIC, the newest 1 capsule a day formula-

tion for all treatable anemias. Samples and literature will be available on all these products, also adequate amounts for clinical trial.

Winthrop-Stearns, Inc.

Booth 12

Winthrop-Stearns, Inc., New York, extends a cordial invitation to visit booth 12. Featured will be: *THEOMINAL R. S.* (Theominal with *Rauwolfia serpentina*, an alliance of the classic and contemporary in antihypertensive compounds.) Theominal R. S. combines the vasodilator and myocardial stimulant actions of theobromine and Luminal with the moderate central hypotensive effect of *Rauwolfia serpentina*. Gentle sedation calms the patient and a feeling of "relaxed well being" is established. Headache and vertigo disappear as the blood pressure and pulse rate are reduced gradually. *LUMINAL OVOIDS*, representing new pharmaceutical elegance for a standard sedative, antispasmodic and hypnotic; distinctive, sugar coated, oval shaped tablets with easy color identification of dosage strength ($\frac{1}{4}$ grain, yellow; $\frac{1}{2}$ grain, light green; $1\frac{1}{2}$ grains, dark green).

U. S. Vitamin Corporation

Booth 13

Exhibit demonstrates the new "oil-in-water" Aquasol Vitamin A Drops . . . providing natural vitamin A in aqueous solution. Latest literature describing more rapid absorption of aqueous vitamin A as compared with vitamin A oil solutions . . . as well as clinical uses of water-soluble A solution . . . will be distributed.

Exhibit also features original, complete lipotropic therapy . . . *METHISCHOL* . . . the combination of five proven lipotropic agents: B_{12} , choline, methionine, inositol and liver extract, therapeutically effective in the treatment of hypercholesterolemia as associated with atherosclerosis, coronary disease, obesity, diabetes and various forms of liver disease, including liver cirrhosis and toxic hepatitis.

The Stuart Company

Booth 14

A representative from The Stuart Company will occupy booth number 14 and will be glad to explain its products to you.

The National Drug Company

Booth 15

A representative from the National Drug Company will occupy booth number 15 and be glad to explain its products to you.

General Electric Company

Booth 16

General Electric Company will have their representatives in booth number 16 and they will be glad to explain their products to you.

Blue Cross-Blue Shield

Booth 17

This exhibit is designed to acquaint the physicians with the growth and progress of Blue Cross-Blue Shield of Alabama, as well as general information about the movement nationally.

Doho Chemical Corporation

Booth 18

Doho Chemical Corporation exhibits *AURALGAN*, the time honored decongestant and pain reliever in otitis media, also for removal of

cerumen; *RHINALGAN*, the equally safe nasal decongestant for infants and the aged; *NEW OTOSMOSAN*, the fungicidal and bactericidal ear medication.

Mallon Chemical Corporation, a subsidiary, features *RECTALGAN*, the liquid topical anesthesia for relief of pain and discomfort in hemorrhoids, pruritus and perineal suturing.

A. H. Robins Company

Booth 19

The A. H. Robins Company display features the comprehensive analgesics *PHENAPHEN* and *PHENAPHEN* with *CODEINE*, ($\frac{1}{4}$, $\frac{1}{2}$ or 1 gr.); Allbee with C Capsules providing saturation dosage of water-soluble vitamins, including 250 mg. ascorbic acid; the antirheumatic Pabalate and the new Donnatal extended action tablets, Donnatal Extentabs.

E. R. Squibb and Sons

Booth 20

Squibb, manufacturing chemists to the medical profession since 1858, welcomes this opportunity to greet its many friends. Each year Squibb looks forward to these meetings where physicians and manufacturers share in the advances of medical research.

Ciba Pharmaceutical Products, Inc.

Booth 21

Representatives in attendance will be glad to discuss their products and to provide up-to-date literature on all Ciba products as well.

Lederle Laboratories Division

Booth 22

You are cordially invited to visit our exhibit in booth 22 where you will find our representative prepared to give you the latest information on *LEDERLE* products.

J. A. Majors Company

Booth 23

Physicians attending the meeting will find the exhibit of the W. B. Saunders Company, Medical Publishers, represented by their Southern agents, J. A. Majors Company at exhibit 23. Some of the newer books being featured are: Conn, Current Therapy, 1955; Alexander, Reactions with Drug Therapy; Shackelford-Bickham-Callander, Surgery of Alimentary Tract, 2 vols.; Allen, Barker and Hines, Peripheral Vascular Diseases, 2nd edition; Christopher, Ochsner and DeBakey, Minor Surgery, 7th edition; Greenhill, Obstetrics, 11th edition, and many others.

Eli Lilly and Company

Booth 24

You are cordially invited to visit the Lilly exhibit located in space number 24. The display will contain information on recent therapeutic developments. Lilly sales people will be in attendance. They welcome your questions about Lilly products.

Parke, Davis & Company

Booth 25

Medical service members of our staff will be in attendance at our exhibit for consultation and discussion of various products of particular interest to members of the Association. Improvement specialties, such as Penicillin S-R, Benadryl, Ambodryl, Dilantin Suspension, Vitamins, Oxycel, Milontin, Amphelease, Thrombin Topical,

etc., will be featured. You are cordially invited to visit our exhibit.

**American Ferment Company, Inc.
Booth 26**

Representatives at the booth will welcome the opportunity to demonstrate the proteolytic and mucosolvent action of the enzyme, Caroid, and to discuss Caroid and Bile Salts Tablets and Alca-roid Antacid. Supligol, a whole bile-ketocholanic acid compound useful in the management of biliary dysfunction, will also be featured.

**McKesson & Robbins, Inc.
Booths 27 and 28**

This company will exhibit and demonstrate the revolutionary new Profexray Rocket 100 MA x-ray machine having a tube capacity of over 80 times that of conventional 100 MA x-ray machines—a Beckman Model B Flame Photometer, being of great interest because of the diagnostic value of alkali metal determination in blood—a Cambridge Operating Room Cardioscope and interconnected electrocardiograph, a great aid to the anesthesiologist and surgeon—an Ultrasonic Treatment Unit, which has gained wide interest in the field of physical medicine. Also their display will have complete lines of Thoracic, G. U., Diagnostic and General Instruments, and the latest in Office Sterilizing Equipment.

**Mead Johnson & Company
Booth 29**

Mead Johnson & Company invites you to see new displays of Liquid Lactum and Powdered Lactum, the infant formula products with balanced caloric distribution. Also featured in the Mead booth will be Liquid Sobee, a hypoallergenic (milk-free) soya formula; Natalins, the smaller prenatal vitamin-mineral capsules; Natalins-T, for the treatment of anemias of pregnancy plus protective nutritional support; and Sustagen, the complete food for tube or oral feeding.

**Burroughs Wellcome & Company, Inc.
Booth 30**

NEOSPORIN (R) brand Polymyxin B—Bacitracin—Neomycin.

ANTIBIOTIC OINTMENT—Wherever there is topical bacterial infection.

MAREZINE (R) Hydrochloride brand Cyclizine Hydrochloride controls: nausea and vomiting of pregnancy . . . motion sickness . . . vertigo. Syrup Tablets of ANTEPAR (R) Citrate, Piperazine Citrate . . . to eradicate pinworms and round-worms . . . Pleasant to take . . . Quickly effective.

**Coca Cola Company
Booth 31**

Ice cold Coca-Cola will be served in booth 31 through the courtesy of the Coca-Cola Bottling Company. You are cordially invited to enjoy "The Pause that Refreshes."

* * *

OTHER ITEMS

CIVIL DEFENSE MOTION PICTURES

Continuous motion pictures on medical and health services of civil defense will be shown under the direction and auspices of the Civil Defense Department of the State of Alabama—courtesy of Hon. James W. Jones, Director of Civil Defense, State of Alabama.

**ALUMNI ASSOCIATION
MEDICAL DEPARTMENT
UNIVERSITY OF ALABAMA**

The annual banquet of the Alumni Association, Medical Department, University of Alabama, will be held at 7:30 P. M. on Friday, April 22nd at the Jefferson Davis Hotel. Judge R. B. Carr of Montgomery will be one of the speakers.

* * *

VANDERBILT ALUMNI LUNCHEON

The annual Vanderbilt Alumni Luncheon will be held at the Whitley Hotel at noon on Friday, the 22nd.

* * *

DURR-PRICE BARBECUE

Durr Drug Company and Price Drug Company, both of Montgomery, will entertain the Association and guests at a barbecue on Thursday, the 21st. Time and place will be announced.

* * *

LUNCHEON FOR THE LADIES

There will be a luncheon and fashion show for the ladies at the Jefferson Davis Hotel at one on the 22nd.

* * *

RECEPTION AND DANCE

The Montgomery County Medical Society will entertain the Association and guests at a reception and dance in the Blue and Gray Room of the Whitley Hotel from 8 to 12 on the night of the 22nd. There will be a floor show.

* * *

STATE PEDIATRIC SOCIETY

The Alabama State Pediatric Society will hold its annual meeting on Wednesday, April 20, at the Whitley Hotel.

Dr. Willis J. Potts of Chicago will discuss "Bleeding from the Rectum" and "Congenital and Acquired Cysts of the Lung." Dr. John Bigler, also of Chicago, will present two papers: "Milk Allergy in Infants Causing Diarrhea, Colic and Vomiting" and "Respiratory Emergencies in Infants and Children."

All physicians and their wives are invited to attend a complimentary breakfast. There will be a luncheon for the ladies. A banquet and dance will be held that evening at the Standard Club.

* * *

**PROGRAM
OF THE
WOMAN'S AUXILIARY
TO THE
MEDICAL ASSOCIATION
OF THE
STATE OF ALABAMA**

Jefferson Davis Hotel
April 21, 22, 1955

OFFICERS

President

Mrs. John M. Chenault..... Decatur

President-Elect

Mrs. W. G. Thuss..... Birmingham

Vice-Presidents

1st—Mrs. J. F. Holley..... Florala

2nd—Mrs. James Brown	Tuscaloosa
3rd—Mrs. James C. Francis	Anniston
4th—Mrs. B. B. Kimbrough	Mobile
Recording Secretary	Birmingham
Mrs. J. J. Durrett	Decatur
Corresponding Secretary	Montgomery
Mrs. Kermit Pitt	Gadsden
Treasurer	Fort Payne
Mrs. E. J. Kocour	Birmingham
Auditor	Bessemer
Mrs. J. O. Morgan	Parliamentarian
Mrs. William B. Noble	Historian
Mrs. W. J. Rosser	Finance Officer
Mrs. J. R. Horn	§ § §

COMMITTEE CHAIRMEN

- A. Sponsored by Woman's Auxiliary, American Medical Association
American Medical Education Foundation—
Mrs. Fred D. Reynolds, Montgomery.
Bulletin—Mrs. John B. Rice, Florence.
Civil Defense—Mrs. John F. Jenkins, Jr., Birmingham.
Legislation—Mrs. Norborne Cocke, Birmingham.
Mental Health—Mrs. J. S. Tarwater, Tuscaloosa.
Nurse Recruitment—Mrs. L. M. Johnson, Elba.
Organization—Mrs. W. G. Thuss, Birmingham.
Program—Mrs. J. R. Williams, Selma.
Public Relations—Mrs. Julian P. Howell, Selma.
Today's Health—Mrs. Otis F. Gay, Huntsville.
- B. Sponsored by Woman's Auxiliary, Southern Medical Association
Councilor to Southern—Mrs. W. G. Thuss, Birmingham.
Doctor's Day—Mrs. W. P. Stewart, Troy.
Jane Todd Crawford—Mrs. William C. Friday, Sylacauga.
Research and Romance of Medicine—Mrs. G. G. Woodruff, Anniston.
- C. Sponsored by Woman's Auxiliary, Medical Association of the State of Alabama
Archives and Exhibits—Mrs. Lowell H. Clemmons, Cullman.
Lettie Daffin Perdue Scholarship—
Members-at-Large—Mrs. E. F. Leatherwood, Hayneville.
Memorial—Mrs. Robert H. Mason, Hamilton.
Newsletter—Mrs. B. F. Austin, Montgomery.
Press and Publicity—Mrs. H. L. Rosen, Montgomery.
Revisions—Mrs. W. T. Brannon, Montgomery.
Rural Health—Mrs. J. M. Crawford, Arab.
Social—Mrs. Hugh Praytor, Jr., Montgomery.
Yearbook—Mrs. M. E. Barrett, Decatur.
Nominating—Mrs. Julian P. Howell, Selma.
- D. For Convention
Convention Chairman—Mrs. J. H. Farrior, Montgomery.
Credentials and Registration—Mrs. Sam Smith, Chairman, Montgomery; Mrs. W. H. Y. Smith, Montgomery; Mrs. E. F. Leather-

wood, Hayneville; Mrs. Haynes Byrne, Montgomery.

Time Keepers—Mrs. William L. Smith, Mrs. T. C. Nolan, Montgomery.

Tickets—Mrs. H. J. Till, Mrs. R. T. Ashurst, III, Montgomery.

Flowers—Mrs. John Branch, Mrs. Frank Riggs, Montgomery.

Hospitality—Mrs. Robert Parker, Chairman, Mrs. J. M. Barnes, Mrs. A. E. Thomas, Mrs. E. P. Jabour, Mrs. Truett Jackson, Montgomery.

Transportation—Mrs. E. J. Kocour, Chairman, Mrs. J. A. Jones, Mrs. Irving London, Mrs. John Martin, Montgomery.

Resolutions—Mrs. J. U. Reaves, Mobile.

Thursday, April 21

8:30-4:30—Registration.

9:00 A. M.—Preconvention Executive Board Meeting, Mrs. John M. Chenault, President, Presiding.

12:30—P. M.—Dutch Luncheon, Mrs. John M. Chenault, Presiding.

Honoring Mrs. Louis K. Hundley, President, Woman's Auxiliary to the Southern Medical Association, Pine Bluff, Arkansas.

Invocation—Mrs. E. F. Leatherwood, Hayneville.

Welcome—Mrs. J. H. Farrior, Montgomery.

Response—Mrs. Joe F. Garner, Dothan.

Greetings from the Medical Association of the State of Alabama—Dr. Joseph M. Donald, Birmingham.

Address—Mrs. Louis K. Hundley.

2:30 P. M.—First General Session.

Call to Order—Mrs. John M. Chenault, President, Decatur.

Invocation—Mrs. N. T. Davie, Anniston.

Membership Pledge—Led by Mrs. Julian P. Howell, Selma.

Introduction of Guests.

Convention Rules of Order—Mrs. J. H. Farrior, Chairman, Montgomery.

First Report of Credentials Committee—Mrs. Sam Smith, Montgomery, Chairman.

Report of Reading Committee—Mrs. J. J. Durrett, Recording Secretary, Birmingham.

Message—Dr. Douglas L. Cannon, Secretary-Treasurer, Medical Association of the State of Alabama.

Annual Reports of Officers.

Annual Reports of Committee Chairmen.

Report of Nominating Committee, First Reading—Mrs. Julian P. Howell, Chairman.

Annual Reports of County Presidents:

Southeastern District—Mrs. J. F. Holley, First Vice-President, Florala.

Coffee—Mrs. J. S. DuBois, Enterprise.

Covington—Mrs. A. B. Lee, Opp.

Houston—Mrs. Joe Garner, Dothan.

Montgomery—Mrs. J. H. Farrior, Montgomery.

Pike—Mrs. Chester K. Beck, Troy.

Northwestern District—Mrs. James Brown, Second Vice-President, Tuscaloosa.

Colbert—Mrs. Howard Johnson, Tuscumbia.

Cullman—Mrs. R. E. Williams, Cullman.
 Jefferson—Mrs. Fred H. Denson, Bessemer.

Mrs. S. Joseph Campbell, Birmingham.

Lauderdale—Mrs. Kirk Deibert, Florence.

Marion—Mrs. T. R. Wear, Hamilton.

Morgan—Mrs. L. R. Murphree, Decatur.

Tuscaloosa—Mrs. Ralph Clements, Tuscaloosa.

Walker—Mrs. R. W. Baker, Dora.

Memorial Service—Mrs. Robert H. Mason, Hamilton.

Friday, April 22

8:30-12:30—Registration.

9:00 A. M.—Second General Session.

Call to Order—Mrs. John M. Chenault, President.

Invocation—.

Introduction of Guests.

Second Report of Credentials Committee—
 Mrs. Sam Smith, Chairman.

Minutes—Mrs. J. J. Durrett, Recording Secretary, Birmingham.

Message—Mr. W. A. Dozier, Public Relations Director, Medical Association of the State of Alabama.

Annual Reports of County Presidents (continued):

Northeastern District—Mrs. James C. Francis, Third Vice-President, Anniston.

Calhoun—Mrs. Irwin Boozer, Anniston.

DeKalb—Mrs. John N. Chitwood, Fort Payne.

Etowah—Mrs. J. E. Bobo, Gadsden.

Madison—Mrs. William N. Etheridge, Huntsville.

Marshall—Mrs. Marston Hunt, Boaz.

Talladega—Mrs. Richard Bliss, Talladega.

Southwestern District—Mrs. B. B. Kimbrough, Jr., Fourth Vice-President, Mobile.

Baldwin—Mrs. Julius Michaelson, Foley.

Dallas—Mrs. W. E. Ehlert, Selma.

Escambia—Mrs. Thurlow W. Reed, Brewton.

Mobile—Mrs. B. B. Kimbrough, Jr., Mobile.

Recommendations from the Executive Board.
 Revisions—Mrs. W. T. Brannon, Chairman, Montgomery.

Presentation of Budget for 1955-56—Mrs. W. J. Rosser, Finance Officer, Birmingham.

New Business.

Announcements.

Report of Nominating Committee—Mrs. Julian P. Howell, Chairman, Selma.

Election of Officers.

Election of Nominating Committee.

Election of Delegates to National Convention.

Final Report of Credentials Committee—Mrs. Sam Smith, Chairman.

Installation of Officers—Mrs. George Turner, President, Woman's Auxiliary to the Ameri-

can Medical Association, El Paso, Texas.

Presentation of President's Pin and Gavel.

Presentation of Past-President's Pin.

Introduction of Committee Chairmen for 1955-

56—Mrs. W. G. Thuss, Birmingham.

Adjournment.

1:00 P. M.—Luncheon, Montgomery County Medical Society, Hosts, Honoring Mrs. George Turner, President, Woman's Auxiliary to the American Medical Association, El Paso, Texas. Mrs. J. H. Farrior, Presiding.

Invocation—Mrs. H. L. Rosen, Montgomery.

Introduction of Guests and New Officers.

Musical Selections—Mrs. E. P. Jabour and Mr. Shearen Elebash.

Address—Mrs. George Turner.

Fashion Show, presented by A. Nachman Co.

Convention Rules of Order

1. All persons appearing on program shall be seated in a reserved section at front of room.

2. Members of the voting body shall wear badges at all sessions of the convention.

3. When addressing the chair, the member shall rise, give her name, and the name of her county Auxiliary.

4. Unless notified to the contrary, each speaker shall be limited to two minutes and may not speak more than twice on any one question.

5. A timekeeper will notify each speaker when her two minutes are up.

6. All motions shall be written, signed, and presented to the Recording Secretary.

7. Reports shall be read only by the person making the report or her appointed delegate.

8. Visitors are welcome at all sessions of the convention, but are requested to register and to sit apart from the voting body.

Liver Abnormalities—The detection of liver enlargement is another means of recognizing liver abnormalities in ambulatory patients. The size and weight of the liver depend upon the amount of fluid and blood it contains. Dramatic excursions in liver size occur in twenty-four hours. Rapid shrinking of the liver has been noted in acute infections treated with antibiotics. We have noted sudden enlargement following a huge meal of food and drink which taxed the functional capacity of this organ. Increase in size of the liver may be produced by increase in the fluid content, fat content, or enlargement of the cells of this organ. Palpation of this organ still remains the best clinical method for detecting enlargement. Osgood and Habbe feel that the palpability is affected by the firmness of the liver substance and that some enlarged organs remain undetected. However, attempts to measure liver size by x-ray have not been successful. No good correlation has been obtained between the size of the liver x-ray shadow and the ability to palpate the liver edge.

—Shushan, J. Louisiana State M. Soc., Feb. '55.

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

STILL THE NUMBER ONE PROBLEM

W. A. Dozier, Jr.

Director of Public Relations

The medical profession has gained considerable ground in its efforts to improve its standing with the public, but there is much more yet to be done. The primary problem when you began your concerted efforts in the field of public relations was the cost of medical care. That is still the principal problem. If you doubt this, listen to the public or find a frank patient and talk with him.

Look at the words and actions of our political leaders, for example the President's recent message wherein he again urged reinsurance. What was the underlying plea? Basically it was simply that too many people could not afford medical care. Although one might like to say that this is a politician's thinking, one must face the fact that either the people have said it often enough to make the political leaders take note or the leaders have said it often enough to make the people believe it. The end result is the same. In the minds of the public, the cost of medical care is paramount. Nine times out of ten when this writer talks to a new acquaintance and tells what his job is, the first response is, "I wish you would get the doctors to lower their charges."

Let us take a cursory glance at the situation. From the beginning, we must admit that it is costly to be sick. It always has been and always will be. Not only is it costly in hard cash paid out but also it is costly in time lost from productivity and in suffering. Most people do not want to be sick, and they resent every minute of it. Therefore an expenditure of money, which is necessary, just augments the feeling of disgust and resentment. Since someone has to get the blame and since the human mind works as it does, it is only natural that the physician should be blamed for the whole expenditure—drugs, hospital bill, nursing bill, and everything else.

Without going any deeper into the problem, you already have enough to form a

basis for some discussion. Although the surface has not been scratched in presenting the problem, it hardly seems necessary as most of you face the situation every day. Instead let us look at some of the things that can be done.

First and foremost you can and should talk over the problem with your patients. Some people have a peculiar feeling when discussing fees with a physician. Still, these same people would not hesitate to discuss the cost of an article in a store or the charge for roofing a house. It is highly likely that you must initiate the discussion. The American Medical Association has prepared a plaque for physicians' offices which may help you. The plaque says: "To All My Patients—I invite you to discuss frankly with me any questions regarding my services or my fees. The best medical service is based on a friendly, mutual understanding between doctor and patient." This plaque has been helpful to many, but the chances are that in many instances you will still have to initiate the discussion.

Recently, a patient of an Alabama physician felt that the charges had been too high. Several friends were asked what they thought of the charges, and finally one friend suggested that the person should call the physician and discuss the matter. The disgruntled person refused to do this. The reason for the refusal is not known, and it very probably is founded on an imaginary situation. However, the fact remains that the profession's public relations were hurt. Naturally you feel that it is the patient's fault for not approaching the physician. Perhaps it is. Perhaps it is also unfair to add another job to your already overburdened shoulders. Still the situation remains, and it is you who suffer.

The second thing needed in attacking this problem is for each physician to itemize his bill. This has been discussed several times in previous articles, but it cannot be overemphasized. You are blamed for the total cost of medical care. The only way to correct this is to itemize. Once you send bills that explain the situation, and basically

that is all itemization is, half the problem is solved.

This second suggestion cannot do the whole job. You will still have to talk to the patients, and frankly they deserve this courtesy. When they see that you are getting only three or five dollars for that office call, they feel better. Then it is a relatively simple thing to explain why hospital costs have risen. Easy, also, is the explana-

tion of their saving by using modern drugs and methods in comparison with the situation a few years ago.

Try as we may, we must finally face the unpleasant fact. Costs are primary with the public. Much of this problem could be dispelled and to your benefit if only the means and methods at hand were used. But, in the final analysis, it all depends on you.

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.

State Health Officer

JAMES MARION SIMS

Pioneer Woman's Surgeon

Contributed by

Nadine Pitts, Director

Division of Public Health Education

We take a great deal of pride today in the progress which has been made in lowering maternal mortality rates. Relatively few women die while giving birth to children as compared with the uncounted numbers who died in earlier years. Most if not all state health departments have a special section or division devoted specifically to the problems of maternal and child health. In Alabama the Bureau of Maternal and Child Health of the State Health Department is one of the leaders in the fight to lower maternal and child mortality rates. And the medical specialty of gynecology—the field devoted to diseases of women—has come of age.

That public health action and improved, specialized medical service have been instrumental in lowering maternal death rates is clear. As late as 1940, for instance, 385 Alabama mothers died during childbirth. Thirteen years later, in 1953, the number of maternal deaths had dropped to 116.

However, maternal health—and the health of all women, for that matter—has not always been considered as of such prime importance as it is today. On the contrary, a little more than a century ago the fatalistic belief that it was God's will for countless wives and mothers to go to an early

grave or to suffer lifelong invalidism prevailed. Even doctors were convinced that women were "fearfully and wonderfully made." For, because of the Victorian customs of the nineteenth century, doctors were "blind men" in the field of women's diseases. Extant pictures of those times portray doctors examining female patients fully clothed, with hat and gloves thrown in for good measure!

It remained for a young surgeon coming from the obscurity of a Southern pioneer town to dispel many of these age-old beliefs. James Marion Sims, born in Lancaster, South Carolina, in 1813, did much to relieve nineteenth century doctors of their blindness where diseases of women were concerned.

Who was this Marion Sims who developed into one of the outstanding nineteenth century pioneers who added more to the basic knowledge of medicine and surgery in three or four decades than had been accumulated in all of the thousands of years preceding? Dr. Seale Harris, one of Sims' biographers, tells us this question would never have been asked in this country in the 1880's. For it was a rare person indeed who had not heard of one of America's most famous contemporary physicians. Before his death, in 1883, Sims' ability to blaze new trails and effect remarkable cures made him an international legend and a controversial figure as well.

Certainly, Marion Sims' early life contained few if any indications of his future greatness. He was the son of a tavern keeper who placed high value on education, which he himself did not have. Colonel

Sims of the Lancaster militia expected his son to become a lawyer, while young Marion's mother hoped that he would be a preacher. Marion Sims' early school life was marked by an unusual lack of confidence in himself; he refused to write compositions, for he was convinced that he could never express himself in writing. And at the age of seventeen, as he prepared to enter South Carolina College in Columbia, he considered himself a complete nonentity. He was an indifferent student and he still nurtured his childhood ambition of becoming a merchant.

However, upon graduation he told his father that there were only three professions worthy of a college graduate—law, theology and medicine. "I'm quite sure I'd not be capable of the first two, so I've decided to be a doctor, although the thought is not pleasing," he said.

Thus, reluctantly and as a last resort, James Marion Sims embarked on the career that was to be so challenging for him and so beneficial for others. His first medical education at the Charleston Medical School was marked by an interest in surgery and anatomy, and a distaste for lectures on obstetrics and kindred problems of women. His distaste and disdain were held in common with most of his fellow students, as well as their elders. He concluded his education at Jefferson Medical College in Philadelphia. While there, his natural bent toward surgery was further stimulated. Unlike students in other medical schools, Marion Sims and his classmates were given the opportunity to witness operations at a small clinic maintained in connection with the college. Although the students themselves had no actual experience, they at least were more fortunate and perhaps better prepared than many of their contemporaries who were given theory alone.

Upon graduation young Doctor Sims returned to his hometown of Lancaster to practice. But this was an unfortunate experience, for his first two patients—both infants—died. Disconsolate, he decided to move westward to Alabama. Actually he set out for Marengo County, but he stopped at Mt. Meigs, then a growing settlement in Montgomery County. It was not until 1840 that he moved with his family to the then town of Montgomery to recover from an attack of malaria.

It was here that his evolution as one of

the world's great surgeons began. He began to win a reputation as a doctor who was particularly skillful at surgery, although it was still practically unheard of for a medical man to specialize in any one field. Among his first successful ventures were operations to correct cross eyes and clubfeet—without benefit of anesthesia, which had not yet been introduced. And as he began to acquire confidence in his surgical skill, he also began to shed the persistent doubts of his own abilities which had tortured him for years.

In the meantime nothing had happened to induce Marion Sims to change his mind about his decision to have as little as possible to do with the special diseases of women. He almost always referred women to another local doctor. However, several events which occurred in the summer of 1845 dragged him into the very field for which he had professed hatred. By chance, he was called on to treat three identical cases of a female disorder. The disorder was vesicovaginal fistula, or rupture of the bladder. Damaged tissues were sometimes sloughed away as an aftermath of childbirth, destroying watertight compartments provided by nature and leaving the victim with no control over normal discharges. True enough, young Doctor Sims had heard of this disorder but he assumed that it was a rarity. However, further reading showed that European and American surgeons had been working for years but in vain to devise operations that would repair these abnormal openings. Down through the ages, he learned, vesicovaginal fistula had been considered incurable. A short time later, although he continued on his daily rounds, he began figuring out all the necessary details of technique for operations to correct this disorder. All his thoughts and hopes were concentrated on these plans. He devised a speculum, a curved instrument with a highly polished concave end. He gathered together knives and needles and silk threads for ligatures. His first patients were three slave girls, Anarcha, Betsy and Lucy. However, his first efforts, although major gains, were not successes. In fact, it was not until 1849, almost four years and many improvements in technique and instruments later, that success did come. His silk threads had been replaced by silver sutures, a perforated birdshot pellet was used to tighten the sutures, and more em-

phasis was placed on cleanliness to prevent infection. His thirtieth operation on the slave woman Anarcha in May 1849 was a complete success, and his was the first cure of vesicovaginal fistula on record.

It is interesting to contemplate the turn James Marion Sims' life might have taken had it not been for the illness which struck at this time. Dr. Harris tells us that Dr. Sims probably had an attack of bacillary dysentery, followed by chronic diarrhea. This illness plagued him for four years or more, and upset many of his just-budding plans to accomplish bigger and better things in surgery. In search of health, he and his family traveled to various "healing springs" and also to New York. Since New York seemed to have an unusually beneficent effect upon his health, he decided to settle there permanently in 1853.

Several handicaps, among them his illness and his lack of local connections, prevented Marion Sims from attaining immediate success in New York, despite his outstanding achievements. By now he had decided to give all his time to the disabilities of women. Only then could he hope to push back the barriers of mystery by which the field of gynecology—specialty of women's diseases—still was obscured. But although eminent New York doctors asked him to show them how to perform his successful vesicovaginal fistula operation, he himself was not asked to operate.

About this time he became aware of the large immigrant population of New York, and, more particularly, the working immigrant mothers who took little time out to have their babies and who fell victim to many female ills as a result. As a matter of common humanity, Sims thought, these women ought to have access to a hospital of their own. The idea fired his imagination but, again, success was a long time coming. Finally, in 1855, the Woman's Hospital, a pioneer institution, came into being because of the efforts of Sims and a handful of staunch allies. The hospital was a pleasant four-story Madison Avenue house, equipped with forty beds to accommodate women of all grades of society. The institution had none of the fatalities which were the bane of other hospitals of the time. In fact, the hospital had been operating for four years before the first fatality occurred. Perhaps the main reason was that its founder and

chief surgeon—who had at last a place to operate—was meticulous almost to the point of what was then considered fanaticism on the subject of operative cleanliness.

Sims lived to see the revolutionary Woman's Hospital which he had established grow to be a great institution. By 1867 much larger quarters were provided on Park Avenue, on what is now the present site of the Waldorf-Astoria Hotel. And today, the Woman's Hospital continues to be one of the great hospitals of the world. In the year 1947, 8,477 women were admitted for treatment, as compared with the forty-bed capacity in 1855, its first year.

Sims' international reputation enabled him to conquer the capitals of Europe. His was the first transformation of the traditional role of the American doctor abroad from that of humble student to that of honored teacher. He set up residence for a time in Paris and later in London, and he was able to command an extensive practice in whatever country he chose to visit. He counted the royalty of Europe among his patients. One of these was the Empress Eugenie, wife of Napoleon.

During these years, also, Sims made further valuable contributions to medical science. Not the least of these was his advocacy of the antiseptic practices proposed by Joseph Lister. While in London in 1877 Sims had occasion to suggest to Lister that he simplify his system to insure more widespread acceptance. In the next decade Lister did transform his technique substantially along the lines suggested by Sims. In addition, Sims was among the pioneers in gallbladder surgery, abdominal surgery and the advocacy of surgical treatment of uterine cancer.

In the summer of 1954 a bronze plaque commemorating James Marion Sims' election to the Alabama Hall of Fame was hung in the Archives and History Building in Montgomery. Earlier, a newspaper feature writer, taking note of South Carolina's and New York's claims to the founder of modern gynecology, stated that Alabama rebuffs all claimants with the proposition that the medical greatness of the man was born in Alabama. But, said the writer, there are honors enough in the life and accomplishments of James Marion Sims to go around without stretching!

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SPECIMENS EXAMINED

November 1954

Examinations for diphtheria bacilli and Vincent's	459
Agglutination tests	622
Typhoid cultures (blood, feces, urine)	377
Brucella cultures	6
Examinations for malaria	66
Examinations for intestinal parasites	2,569
Serologic tests for syphilis (blood and spinal fluid)	21,459
Darkfield examinations	2
Examinations for gonococci	1,405
Examinations for tubercle bacilli	3,157
Examinations for meningococci	0
Examinations for Negri bodies	76
Water examinations	1,588
Milk and dairy products examinations	4,716
Miscellaneous examinations	6,333
Total	42,835

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

CURRENT MORBIDITY STATISTICS

1954

		Oct.	Nov.	E. E.* Nov.
Typhoid and paratyphoid fever	7	2	2	
Undulant fever	0	0	4	
Meningitis	10	10	9	
Scarlet fever	46	76	77	
Whooping cough	144	120	51	
Diphtheria	30	45	56	
Tetanus	3	4	4	
Tuberculosis	233	170	189	
Tularemia	0	1	1	
Amebic dysentery	2	1	1	
Malaria	0	1	12	
Influenza	55	384	151	
Smallpox	0	0	0	
Measles	37	45	73	
Poliomyelitis	40	16	9	
Encephalitis	1	1	0	
Chickenpox	13	79	62	
Typhus fever	5	1	7	
Mumps	30	105	28	
Cancer	352	441	319	
Pellagra	3	0	2	
Pneumonia	162	203	125	
Syphilis	243	104	578	
Chancroid	5	3	13	
Gonorrhea	555	296	358	
Rabies—Human cases	0	0	0	
Positive animal heads	34	18	0	

December 1954

Examinations for diphtheria bacilli and Vincent's	210
Agglutination tests	575
Typhoid cultures (blood, feces and urine)	280
Brucella cultures	6
Examinations for malaria	76
Examinations for intestinal parasites	2,182
Serologic tests for syphilis (blood and spinal fluid)	22,460
Darkfield examinations	1
Examinations for gonococci	1,154
Examinations for tubercle bacilli	3,209
Examinations for meningococci	0
Examinations for Negri bodies	85
Water examinations	1,550
Milk and dairy products examinations	4,794
Miscellaneous examinations	1,796
Total	38,378

		Nov.	Dec.	E. E.* Dec.
Typhoid and paratyphoid fever	2	3	3	
Undulant fever	0	0	3	
Meningitis	10	8	7	
Scarlet fever	76	79	71	
Whooping cough	120	78	81	
Diphtheria	45	12	38	
Tetanus	4	6	3	
Tuberculosis	170	136	187	
Tularemia	1	0	1	
Amebic dysentery	1	0	0	
Malaria	1	0	4	
Influenza	384	1021	252	
Smallpox	0	0	0	
Measles	45	103	64	
Poliomyelitis	16	5	9	
Encephalitis	1	0	0	
Chickenpox	79	204	153	
Typhus fever	1	0	5	
Mumps	105	106	41	
Cancer	441	522	291	
Pellagra	0	0	2	
Pneumonia	203	216	171	
Syphilis	104	101	705	
Chancroid	3	6	14	
Gonorrhea	296	289	340	
Rabies—Human cases	0	1	0	
Positive animal heads	18	26	0	

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR OCTOBER 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered During October			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Live births	7011	4472	2539	25.8	25.6	27.0
Stillbirths	158	73	85	22.0	24.3	26.8
Deaths, stillbirths excluded	2087	1282	805	7.7	7.2	8.1
Infant deaths—						
under one year	222	102	120	31.7	27.8	36.4
under one month	151	73	78	21.5	19.7	25.5
Cause of Death						
Tuberculosis, 001-019	31	13	18	11.4	14.1	15.0
Syphilis, 020-029	11	3	8	4.0	4.8	3.8
Typhoid and para- typhoid, 040, 041						0.4
Dysentery, 045-048	2	1	1	0.7	1.1	0.4
Diphtheria, 055	1	1		0.4		1.5
Whooping cough, 056	1	1		0.4		
Meningococcal infections, 057	5	3	2	1.8	0.4	1.1
Poliomyelitis, 080, 081	3	3		1.1		0.8
Encephalitis, 082, 083	1	1		0.4		
Malaria, 110-117				0.4		
Malignant neoplasms, 140-205	267	199	68	98.1	88.0	95.6
Diabetes mellitus, 260	31	16	15	11.4	6.7	10.5
Pellagra, 281	4	2	2	1.5	0.7	0.4
Vascular lesions of central nervous sys- tem, 330-334	251	122	99	92.2	91.7	97.1
Other diseases of ner- vous system and or- gans of special sense, 340-398						
Rheumatic fever, 400- 402	15	10	5	5.5	7.1	9.0
Diseases of the heart, 410-434						
Hypertension with heart disease, 440- 443	566	400	166	208.0	172.7	240.9
Diseases of the arteries, 450-456	133	75	58	48.9	50.9	
Other diseases of circulatory system, 444-447, 460-468	35	19	16	12.9	12.6	10.5
Influenza, 480-483	24	15	9	8.8	11.9	14.7
Pneumonia, 490-493	5	3	2	1.8	2.2	2.3
Bronchitis, 500-502	55	30	25	20.2	18.2	25.6
Appendicitis, 550-553	3	3		1.1	0.7	2.6
Intestinal obstruction and hernia, 560, 561, 570	2	1	1	0.7	1.9	2.6
Gastro-enteritis and colitis (under 2), 571.0, 764	15	11	4	5.5	5.9	5.6
Cirrhosis of liver, 581	7	3	4	2.6	4.5	18.4
Diseases of pregnancy and childbirth, 640- 689	16	13	3	5.9	5.2	0.8
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	10	1	9	13.9	12.7	16.3
Congenital malforma- tions, 750-759	2		2	2.7	1.4	2.7
Accidental deaths, total, 800-962	23	11	12	3.3	5.4	4.6
Motor vehicle acci- dents, 810-835, 960	134	83	51	49.2	52.0	52.3
All other defined causes	69	44	25	25.4	26.7	29.0
Ill-defined and un- known causes, 780- 793, 795	347	179	168	127.5	120.3	138.1
	81	28	53	29.8	30.8	42.5

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; still-

PROVISIONAL BIRTH AND DEATH STATISTICS FOR NOVEMBER 1954

Live Births, Stillbirths and Deaths by Cause	Number Registered November 1954			Rates (Annual Basis)		
	Total	White	Colored	1954	1953	1952
Live births	7341	4492	2849	27.9	25.4	27.1
Stillbirths	147	56	91	19.6	22.9	24.6
Deaths, stillbirths excluded	2272	1330	942	8.6	8.8	8.5
Infant deaths—						
under one year	249	105	144	33.9	34.5	33.3
under one month	170	73	97	23.2	21.7	11.1
Cause of Death						
Tuberculosis, 001-019	26	13	13	9.9	10.4	10.5
Syphilis, 020-029	6	1	5	2.3	2.3	3.5
Dysentery, 045-048	1		1	0.4		0.4
Diphtheria, 055	1		1	0.4		1.9
Whooping cough, 056	1	1		0.4	0.4	
Meningococcal infections, 057						1.5
Poliomyelitis, 080, 081	2	2		0.8	0.4	
Encephalitis, 082, 083	1		1	0.4	0.4	0.4
Measles, 085	1		1	0.4		
Malignant neoplasms, 140-205	243	166	77	92.3	104.0	99.2
Diabetes mellitus, 260	25	17	8	9.5	15.3	9.3
Pellagra, 281	2	1	1	0.8	0.8	1.2
Vascular lesions of central nervous sys- tem, 330-334	267	152	115	101.4	118.6	111.2
Other diseases of ner- vous system and or- gans of special sense, 340-398						
Rheumatic fever, 400- 402	15	10	5	5.5	2.7	1.5
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All other defined causes	347	179	168	127.5	120.3	138.1
Ill-defined and un- known causes, 780- 793, 795	81	28	53	29.8	30.8	42.5
	94	34	60	35.7	41.4	2.7

births per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

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OBSERVATIONS ON THE DIAGNOSIS AND MANAGEMENT OF SEGMENTAL ARTERIAL OBSTRUCTION FROM ARTERIOSCLEROSIS

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As pointed out by dos Santos and Leriche, although arteriosclerosis is a diffuse disease microscopically and grossly, symptoms from this condition are often due to a relatively small area where atheromatous plaques have piled up excessively, causing local thrombosis and obstruction. If such thrombosis occurs below the knee in a single area, very few signs or symptoms result, due to the presence of three arterial channels below the knee. Only when multiple obstructions occur in these three vessels below the knee do symptoms of coldness, pain and signs of discoloration and gangrene appear. This is not true above the knee from the popliteal bifurcation up to the aorta, where a single channel carries the main blood supply. Any obstruction of the artery above the knee will sharply reduce the blood supply to large muscle groups with resulting claudication, and since there is only one major artery, the iliac-femoral, above the knee, this is a frequent cause of crippling symptoms. It is now well recognized that claudication may occur, not only in the calf muscles but in the posterior thigh and gluteal muscles as well.

If the obstruction occurs in the abdominal aorta or the iliacs, this high type of intermittent claudication will cause crippling symptoms. Common sites of this rather localized obstruction in the major blood supply to the lower extremities are the bi-

furcation of the aorta and the origin of the iliac arteries; next, the mid-portion of the superficial femoral artery, and third, the popliteal artery. The cause for the excessive arteriosclerosis developing at these critical areas is not completely understood, but is felt to be due to excessive trauma to the vessels at these locations. For instance, the turbulence of the blood at the aortic bifurcation may be the trauma that causes obstruction at this point. The constant compression of the superficial femoral artery beneath the thick muscular tunnel in the thigh may cause early obstruction in the artery at mid-thigh level. The constant flexion and extension of the popliteal artery as patients flex and extend the knee may cause frequent obstruction at this position. Nevertheless, it is perfectly evident today that arteriosclerosis may cause localized obstruction in these various areas with a channel of normal caliber above and below such an obstruction. When segmental obstruction occurs, collateral circulation increases in caliber around the block so that the foot does not become gangrenous and may even remain warm, with a normal skin color. These collaterals, however, cannot carry enough blood to meet the demands of muscular exercise which is often ten times the demand at rest. This is the cause of the cramping in the calf after walking one block or less, which disappears almost immediately with cessation of walking.

Read before the Alabama Chapter of the American College of Surgeons, Montgomery, January 15, 1955.

From the Department of Surgery, Medical College of Alabama.

With the recent advances in the techniques of arterial surgery, and especially with new methods for preserving segments of human arteries to be used in blood vessel

replacement, a wide new field has opened with great possibilities of relieving these crippling symptoms of intermittent claudication. It is therefore more important today than ever before to recognize which patients with intermittent claudication do have resectable segments of localized obstruction that can be replaced. The only certain and sure way to make a definite diagnosis of the location and length of obstruction is by arteriography. It is not practical or economical to carry out this procedure on every patient with arterial obstruction and therefore it is important to consider various physical signs and symptoms that will help determine which patients are most likely to have a resectable segment of obstruction. Palpation of the femoral, popliteal and pedal pulses is most valuable in locating the upper limits of obstruction. A careful history of the muscle groups involved in the intermittent claudication is also helpful in determining how high the arterial system is obstructed. For instance, patients with iliac artery obstruction will have no femoral pulse on the involved side. Patients with aortic obstruction will have no femoral pulses on either side. Both groups of patients will have a high type of claudication, with fatigue and cramps in the calf, posterior thighs and gluteal muscles. In addition, men will have loss of the power of maintaining erection due to obstruction of the hypogastric arteries. It is important to think of this type of arterial obstruction in patients complaining of back pain and pain in the sacro-iliac region extending down the thigh, quite similar to the pain of sciatica or ruptured intervertebral disc. The pain of sciatica or disc usually is not relieved by rest and is not aggravated by exercise, as is the pain of intermittent claudication from obstruction. Many of the patients with aortic and iliac obstruction are first referred to an orthopedist because the pain distribution resembles sciatic nerve pain. Careful palpation for femoral pulses can make the diagnosis of pain caused by arterial obstruction.

If the patient's claudication is limited to the calf muscles, and he has a palpable strong femoral pulse but no popliteal pulse, his obstruction then lies in the superficial femoral artery in the thigh or in the upper reaches of the popliteal artery behind the knee.

As stated before, it is not practical to do

arteriograms on all such patients because many will have diffuse obstruction of vessels also below the knee which are too small for surgical intervention. It is important, therefore, to determine what physical signs and symptoms can eliminate from consideration those patients who are not likely to be candidates for arterial replacement. The physical signs which indicate diffuse arterial obstruction, usually of the vessels below the knee, are as follows:

1. Purplish rubor of the skin of the foot on dependency for two minutes or more.
2. Ischemic rest pain or constant aching in the toes and ankles due to severe ischemia.
3. Gangrene.

All of these symptoms and signs are likely to indicate a degree of arterial obstruction too advanced to warrant direct attack on obstruction higher up. If the patient is seen with intermittent claudication, and is healthy, active, and anxious to continue to be able to walk to carry out his normal functions and earn his livelihood, and has none of the three signs of severe diffuse disease, we feel that we should have arteriography to outline the extent and resectability of his obstruction. If the patient has loss of one or both femoral pulsations, a lumbar aortogram is necessary, injecting 70% Urokon through two needles inserted into the aorta just above the renal arteries. This will outline any areas of obstruction from the renal arteries down to the common femoral arteries (Fig. 1). If the patient has good palpable femoral pulses and still has claudication, a femoral arteriogram can be carried out quite simply by injecting 20 cc. of 30% Urokon directly into the common femoral artery and following its progress down the arterial channel with a slow exposure x-ray film.

The following plan of diagnosis and treatment has recently been evolved on this surgical service for obstruction of the femoral or popliteal artery: The patient is taken to the operating room, given a high spinal anesthesia, and a femoral arteriogram is made on the operating table, using a portable x-ray machine. Such an arteriogram is shown in Figure 2. The film is developed immediately and read, and if a resectable segment is seen, replacement is carried out at once. If the area of obstruction is too long or too diffuse to warrant



Fig. 1



Fig. 2

direct attack, a lumbar sympathectomy is then carried out, using the same spinal anesthesia. This has proved to be a very economical way to carry out the diagnosis and treatment in a single procedure. It should be emphasized that these are the patients who benefit most from lumbar sympathectomy in arteriosclerosis—those who have early obstruction with a considerable amount of collateral circulation.

TECHNIQUES OF TREATMENT

Aortic and iliac obstructions must be replaced by preserved arterial homografts taken from individuals under the age of thirty-five and prepared by a freeze-drying technique, which, essentially, means removal of the residual moisture in the vessel by freezing in a constant vacuum for 72 hours. Figure 3 demonstrates an aortic homograft in place after resection of a diseased aortic



Fig. 3

bifurcation with complete obstruction at the right iliac origin. The specimen removed is shown in Figure 4. This patient has been relieved of his severe crippling, high claudication for a period of one year. Obstructions of the superficial femoral and popliteal arteries can usually be bridged by using the patient's own saphenous vein. Very long vein grafts of saphenous vein have not been completely satisfactory and other methods are now being sought to replace this type of graft.

Since an adequate supply of preserved arteries is quite difficult to obtain because of the low mortality in the age group from which satisfactory grafts can be removed, other methods are being sought to give satisfactory replacements. Blakemore and Voorhees in New York have recently shown that vinyon can be sewed with an ordinary sewing machine in the form of a tube and, if tightly woven, can be used as an arterial splint until such time as fibroblastic re-



Fig. 4

placement or infiltration of the fabric forms a strong scar which will permanently carry the stream of blood. With the help of the Chemstrand Corporation of Decatur, Alabama, we have developed and tested braided tubes of nylon, which are chemically treated in such a way that they are somewhat stiff and can be cut at any point along the tube and will hold an arterial suture at this point without fraying. A physical feature has

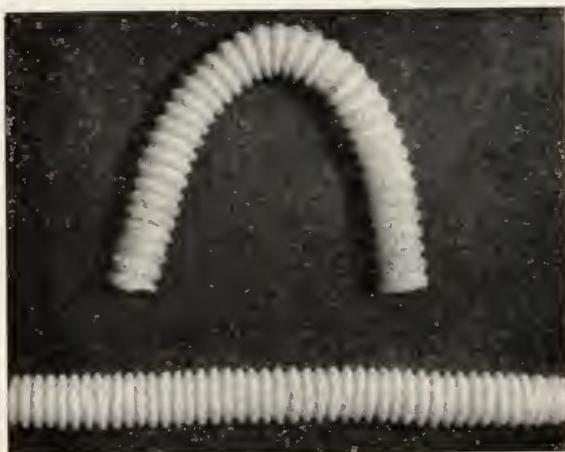


Fig. 5

been incorporated by the chemists at Chemstrand which involves a circular crimp (Figure 5) which will allow these stiffened ny-

lon tubes to be flexed as far as necessary without any kinking. This is quite important if replacing an artery in a flexion area, such as the groin or the popliteal space, because kinking would completely obliterate the blood flow to the distal part of the extremity. These braided tubes of nylon, we believe, will offer a considerable improvement in the availability and simplicity of arterial replacement material.

SUMMARY

In the past few years it has become evident that arteriosclerosis can cause obstruction with fairly normal vessels above and below the obstruction. Methods are described for diagnosing clinically and by arteriography the location and length of such obstruction causing intermittent claudication. Methods of replacement of such obstructions have been described by the use of arterial homografts, venous autografts, and by chemically treated, braided nylon tubes.

Epilepsy—Encouragement and reassurance are most important in these cases. Having the patient live as full a life as is compatible with his condition is good, and, with few exceptions, it is best to allow a child to do everything the other children do. It is helpful to explain to the patient factors that further lower the convulsive threshold, such as overfatigue and exhaustion from disease and infection, and irregularity in habits of eating and sleeping, bowel function, et cetera. It is also important for the patient to abstain completely from the use of alcoholic beverages, restrict beverages containing caffeine, and avoid the excessive drinking of water.

In small children barbiturates, Mebaral, Butisol and Dilantin, are the safest and best, though in recent months our oldest anticonvulsant, bromide, is gaining some popularity for use in the young children.

If the patient is of school age or in college, it is better to attempt to control his seizures with Dilantin or Mesantoin. If a barbiturate is necessary, use Mebaral instead of phenobarbital or bromide, as the latter two drugs have been shown to lower the learning capacity of the individual.

In the petit mal, Paradione and Milontin are the better drugs, though there are still some workers who believe that phenobarbital should be given.

In the adult group, with nocturnal seizures, or grand mal, which is the more common, we frequently find that a combination of phenobarbital with Dilantin is one of the safest to use over a long period of time. Our experience, too, has taught us, in order to gain the confidence of the patient, it is well to use large doses of the medication, or combinations thereof, to bring the attacks under control, even to the extent of reaching toxic level.—McCullagh, *J. Florida M. A.*, March '55.

PULMONARY SEGMENTAL RESECTION USES AND TECHNIC

JAMES D. HARDY, M. D., F. A. C. S.
Memphis, Tennessee

It is no longer enough merely to know that there are five lobes in the lungs. Each lobe is subdivided into a definite number of smaller units which are termed pulmonary segments. This is important because certain diseases have a segmental distribution; that is, the pathologic process may involve only one segment. To preserve all possible functioning lung tissue, only the involved segment should be excised.

The present discussion will be divided into four parts:

1. Pulmonary segments as anatomic units.
 2. Diagnosis of pulmonary segmental disease.
 3. Pathologic lesions amenable to segmental excision.

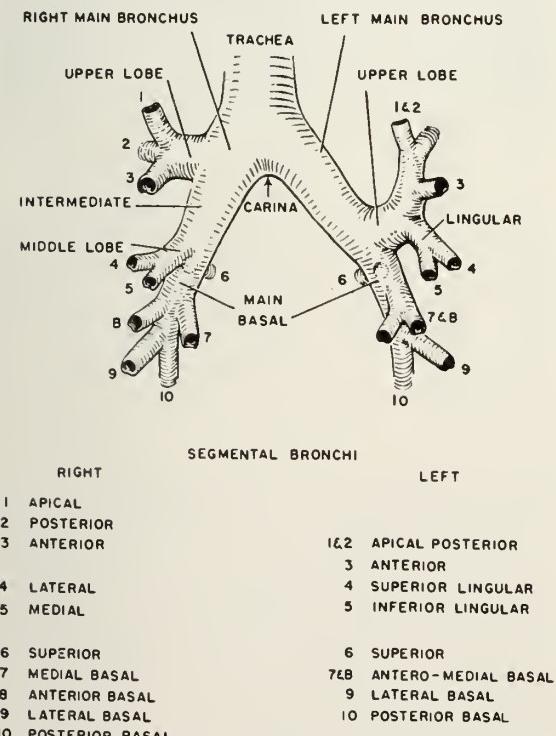


Fig. 1. The Segmental Bronchi. (From Johnson, J., and Kirby, C. K., Surgery of The Chest. The Year Book Publishers, Inc., Chicago, 1952).

Read before the Alabama Chapter of the American College of Surgeons, Montgomery, January 15, 1955.

From the Department of Surgery and Surgical Laboratories, Medical College of the University of Tennessee, Memphis.

The author is, at present, Professor and Head of the Department of Surgery, University of Mississippi, Jackson.

4. Technic of segmental excision.

PULMONARY SEGMENTS AS ANATOMIC UNITS

A more detailed knowledge of pulmonary anatomy followed naturally the development of thoracic surgery in general. As improved operative technic and anesthesia permitted safe and meticulous pneumonectomy and, next, lobectomy, it became clear to Chevalier L. Jackson and John F. Huber of Temple University that pulmonary units smaller than the lobes could be identified. They developed a system of nomenclature for the tertiary lung divisions (primary bronchus to lung, secondary bronchi to lobes, tertiary bronchi to segments), and their classification has been widely adopted (Figs. 1 and 2). Meanwhile, concurrent with these anatomic studies, a number of

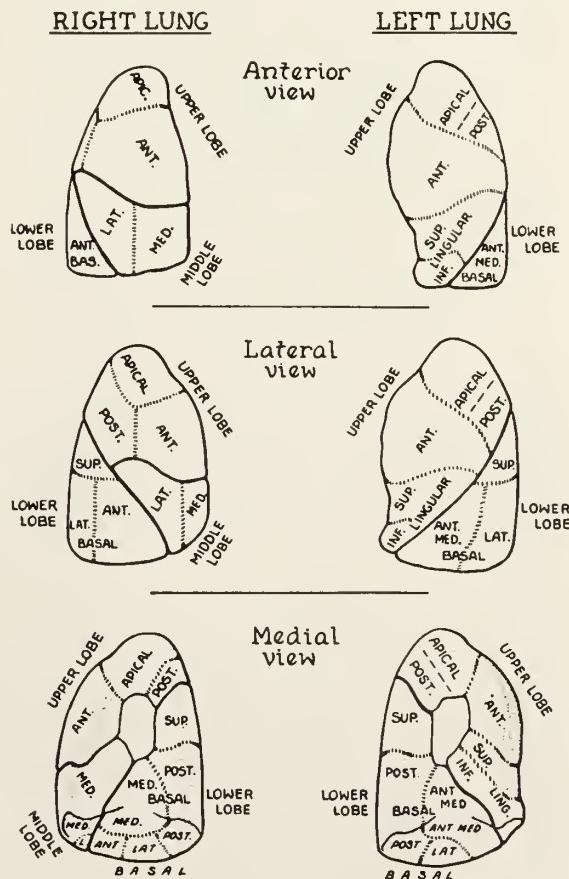


Fig. 2. The Bronchopulmonary Segments. The classification is that proposed by Jackson and Huber. (From Johnson, J., and Kirby, C. K., Surgery of The Chest. The Year Book Publishers, Inc., Chicago, 1952).

surgeons—Overholt, Brock, Churchill, Blades and others—were developing surgical techniques which permitted the precise excision of individual segments where it was mandatory to preserve adjacent lung tissue. This was particularly needed to permit multiple segmental excision in bronchiectasis involving more than one lobe or more than one lung.

As may be seen in Figures 1 and 2, there are essentially ten pulmonary segments in each lung. In the left lung the apical and posterior segments of the left upper lobe tend to share a common bronchus, but it later divides and these segments can be excised separately. The same is true of the antero-medial basal segments. Each segment has its own segmental bronchus and its own blood supply consisting of one or more arterial and one or more venous com-

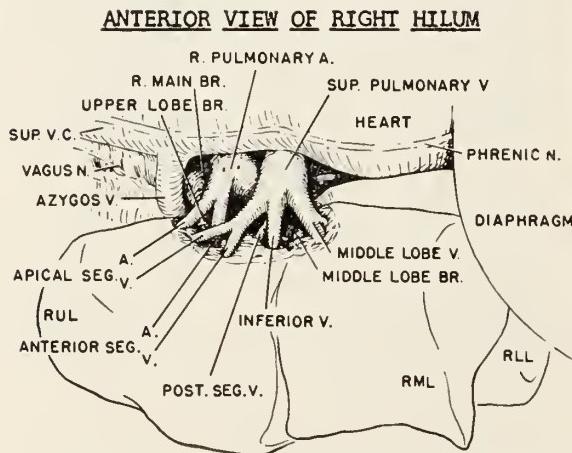


Fig. 3. Anterior View of Right Hilum. The apical segmental artery and vein are to be noted and the anterior segmental artery and vein of the right upper lobe are to be noted. The bronchi to these segments may be seen in Fig. 1. (From Johnson, J., and Kirby, C. K., *Surgery of The Chest*. The Year Book Publishers, Inc., Chicago, 1952).

ponents. An anterior view of the right pulmonary hilum is shown in Figure 3. The important point to be noted in this figure is that the apical segment of the right upper lobe has its own artery and its own vein, in addition to its own bronchus (Fig. 1). The same is true for the bronchial, venous, and arterial supply to the other segments throughout both lungs.

PULMONARY SEGMENTAL DIAGNOSIS

It was intimated above that only a single segment or two adjacent segments may be involved in a particular disease. To excise the disease precisely, the exact segmental

distribution should be known preoperatively, if possible. This is particularly true if bronchiectasis is present, since this condition may not be readily identifiable at operation. The identification of the involved segments can be done in several ways.

Routine Roentgen Examination. In Figure 4 are shown the posterior-anterior and the lateral films of the chest. On the posterior-anterior view is shown a large cavity in the lateral mid-lung field of the right lung. On the lateral film it can be seen that this cavity is situated in the anterior portion of the

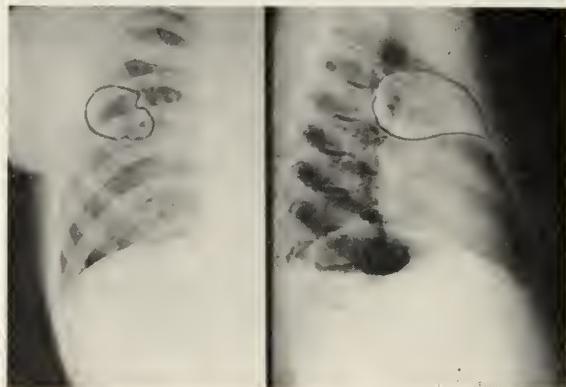


Fig. 4. Large Cavity in Anterior Segment of Right Upper Lobe.

chest and almost certainly in the upper lobe. It is highly likely, therefore, that this cavity is in the anterior segment of the right upper lobe. Thus, much information concerning segmental involvement may be gained from a plain film of the chest, and body section films (planograms) may provide additional aid.

Bronchoscopic Examination. The involved segment may often be identified at bronchoscopy by visualizing the segmental orifice from which pus, blood, or excessive secretion of any type is draining. It may not be possible to visualize the segmental orifice of the upper lobe from which secretions are coming, but it is commonly possible to identify the segmental orifices in the lower lobe.

Bronchographic Studies. There is a third procedure by which the site of the disease may be precisely outlined and that is by bronchography, using lipiodol or some suitable contrast medium. After anesthetizing the mouth, pharynx, trachea, and larger bronchi with local anesthesia (usually, one-third per cent pontocaine), one slowly drips oil into the trachea and causes it to flow into the desired bronchi by proper positioning of

the patient, who is urged not to cough. For example, the oil flows into the dependent upper lobe bronchus and thence into the segmental orifices of its anterior, posterior, and apical segments. If the oil fails to enter a segment it may be because the bronchus to this segment is occluded. Or, the oil may enter a segment only to reveal an abnormal dilatation of the bronchus (bronchiectasis). The oil may pass through the segmental bronchus and outline a cavity. Finally, the medium may pass through the bronchus and enter the pleural space, demonstrating a bronchopleural fistula.

Inspection, Palpation, and Differential Inflation of Segments at Operation. Although from routine roentgen examination, bronchoscopy, and bronchograms it may have been possible to identify the segment or segments involved with reasonable accuracy preoperatively, the extent of the disease is further clarified by actual inspection and palpation of the lung at operation. In addition, after the segmental bronchi of the lobe involved have been identified, by serial occlusion of these bronchi and differential inflation with positive pressure one can identify the segments which are involved and those which are not involved. Usually the preoperative studies are found to be accurate as to the extent of the disease, but occasionally the disease process involves more of the lung than was suspected from the diagnostic studies.

PATHOLOGIC LESIONS AMENABLE TO SEGMENTAL RESECTION

By and large, any benign lesion that has a segmental distribution is amenable to segmental resection. Bronchiectasis and tuberculosis are two of the most frequently encountered diseases which offer an opportunity for segmental resection. The tuberculosis may present as a cavity, bronchiectasis, or a solid lesion such as a tuberculoma. One of the most commonly resected portions of the lung is the lingula of the left upper lobe, which is commonly involved by bronchiectasis that may also involve the left lower lobe. The lingula, in actuality, constitutes a "left middle lobe," and it has two segments as does the right middle lobe. In a sense, then, the resection of the lingula is not strictly a segmental resection, in that both segments are virtually always excised as a unit. However, it is often involved as an isolated portion of the left upper lobe, and

it is readily amenable to "segmental" resection.

Since tuberculosis is not usually accompanied by the intense inflammatory process which accompanies a suppurative lesion such as a lung abscess, in the presence of tuberculosis the segments are usually separated without too much difficulty, and the resultant air leaks from the adjacent segments are not excessive. Moreover, since the initiation of long-term preoperative chemotherapy with streptomycin, PAS, and isoniazid, the incidence of bronchopleural fistula following segmental resection for tuberculosis has diminished sharply.

The early lung abscess commonly has a segmental distribution, but it is not always possible to resect the abscess by removing a single segment. The intense inflammatory process surrounding the abscess may have caused the adjacent segments to be so adherent that a plane of cleavage between the segments cannot be identified or readily produced by dissection. Nevertheless, in recent months we have resected several abscesses by segmental excision and have had no complications.

Among other lesions which may be resected by segmental resection are isolated pulmonary cysts, hamartomas (a developmental defect consisting of various components of pulmonary tissue), metastatic tumor where justified, hemangioma, bronchial adenoma, and other lesions which can be removed locally. We still use the wedge resection technic for small lesions which present on a surface of the lung, but if the lesion is deep within pulmonary tissue we prefer to do the more precise operation of segmental excision. For carcinoma of the lung we usually do a pneumonectomy, rarely a lobectomy.

PULMONARY SEGMENTAL EXCISION

To excise segments accurately, a detailed knowledge of the tertiary (segmental) pulmonary hila is necessary. As a rule, the segmental artery is first identified and divided, then the vein, and last the bronchus. However, if there is any question regarding the vasculature, the bronchus may be identified and by differential inflation the exact segmental distribution of the vessels demonstrated. If complete identification is not routinely done, the blood supply of segments which were to have been preserved may be inadvertently ligated. Fortunately,

it is usually possible to demonstrate the segmental arteries and veins satisfactorily. The relative positions of the segmental bronchi are more constant than are those of the vessels, and familiarity with the usual positions of these segmental bronchi is most useful. Once the segmental bronchus and vessels have been identified and divided, the diseased segment is dissected from adjacent segments much as the gallbladder is removed from below upward after division of the cystic duct and artery. By traction upon the bronchus and blunt dissection with the side of the finger, the diseased segment can be separated from adjacent segments with a minimum of sharp dissection, thus reducing bleeding and air leaks.

At times segmental dissection is just as simple as the telling, but at other times it is most difficult. If there is not a great deal of scar tissue and adherence to adjacent segments, the segment may come away beautifully, leaving the intersegmental vein on the surface of the remaining segments on either side. A few small branches of these intersegmental veins will usually need to be ligated and divided, and there will be a number of small air leaks on the denuded surfaces of the remaining segments. Nevertheless, these air leaks generally require little in the way of suturing and the significant bleeding vessels are ligated. By compressing the denuded surfaces with a warm sponge for a few moments one can stop most of the air leaks and the bleeding from small vessels. When hemostasis is satisfactory and the anesthetist can "hold" pressure with the anesthetic bag, one may be satisfied that with drainage of the chest anteriorly for air, and posteriorly for transudate and blood, the expansion of the lung will usually be assured. The bronchial stump is closed with interrupted silk sutures, and it is covered with adjacent pleura or other tissue. We routinely employ suction (about 10 centimeters of water) for the first 24 hours to assist and maintain expansion of the lung.

The postoperative care is important. A routine chest x-ray is made the night of operation and on each of the succeeding two days. The patient is urged to cough, and the trachea is aspirated with a nasal catheter if the patient does not cough satisfactorily. He is gotten out of bed the day of operation or the day thereafter, and is otherwise mobilized as rapidly as possible.

If a collection of air appears in the chest in spite of the drainage tubes, this is promptly aspirated. The most important single factor in reducing complications following segmental resection is the rapid obliteration of dead space by adequate expansion of the remaining lung. The complications following segmental resection in experienced hands are not appreciably greater than those following lobectomy for the same disease. The mortality from segmental resection is low, as is that for other types of pulmonary resection at the present time. To bear witness, almost 400 consecutive pulmonary resections have now been done at the West Tennessee Tuberculosis Hospital in Memphis without a mortality.

SUMMARY AND CONCLUSIONS

Pulmonary segmental anatomy, diagnosis, pathology, and excision have been discussed. As lobectomy replaced pneumonectomy for lesions that could be excised by lobectomy, so segmental excision is replacing lobectomy for lesions that can be excised by the removal of one of these smaller anatomic units. By resecting only the diseased portion of a lobe, the surgeon excises non-functioning pulmonary tissue but spares the functioning pulmonary tissue. Segmental excision represents an established and important advance in pulmonary surgery.

Suppurative Bacterial Meningitis—It should be emphasized that the primary objective of the therapy of meningitis is the rapid control of the infection by achieving therapeutic serum and spinal levels of the appropriate antimicrobial agent. Whether or not the intraspinal injection is necessary depends on several factors, such as the type of antibiotic being used, the blood levels achieved, the rate of diffusion across the meninges, the sensitivity of the etiologic organism to the antibiotic being administered, the age of the patient, and the mode of entrance of the invading organism. If massive doses of penicillin are used, intrathecal injection of penicillin may not be necessary in the treatment of pneumococcal meningitis. On the other hand, if small systemic doses are used, intrathecal injection may be necessary. If the etiologic organism is extremely sensitive to the antimicrobial agent being administered systemically, as in the case of sulfonamides and meningococci, or penicillin and hemolytic streptococci, intrathecal administration is usually not indicated. Gram-negative bacilli are relatively resistant to most antibiotics, so that, if there is an antibiotic that can be administered intrathecally which is active against the particular organism, higher local concentration can be attained.—Yow, *Journal-Lancet*, March '55.

PENETRATING WOUNDS OF THE GRAVID UTERUS

A CASE REPORT

JOHN J. CARTER, M. D.
Florence, Alabama

A penetrating wound of the gravid uterus is a relatively rare occurrence that demands immediate treatment. When faced with such a catastrophe, one must consider the life of the injured patient, the life of the fetus, and the preservation of the uterus. Since the rarity of this type of accident almost precludes past personal experience as a basis for management, a brief summary of reported cases and the presentation of an isolated case seems worth while.

Wright, Posner and Gilchrist¹ reviewed the world literature on the subject in an effort to establish a modus operandi for the management of such cases. Twenty-eight cases, including one the writers personally experienced, are reported. There was only one mortality in the group and only three hysterectomies. Fourteen of the infants survived the original accident, and eighteen cesarean sections were performed at the time of exploration. Bowel injuries occurred in only five of the accidents and bowel resection was necessary in only one. The writers' conclusion was that conservative surgery was the treatment of choice. They pointed out that the gravid uterus is very resistant to trauma and infection and surmised that uncontrollable bleeding is the only indication for hysterectomy in these cases. Cesarean section seemed not always mandatory as demonstrated by normal deliveries of living infants in five of the ten cases that did not have cesarean section.

To this series is added the following case, which was treated by the Obstetric Section and Surgery Service of U. S. Army Hospital, Camp Roberts, California.

Mrs. A. K., a seventeen year old, eight months pregnant, primigravida was admitted to the U. S. Army Hospital, Camp Roberts, California, April 8, 1951. Approximately twenty minutes before her arrival at the hospital she had sustained a bullet wound of her right flank. The weapon was reported to have been a 30-30 rifle, loaded with a soft nosed shell, which was accidentally discharged approximately eighteen inches from the patient's back.

On admission the patient complained of pain in the right flank, abdomen, right leg

and foot. She was pale and restless, but was mentally alert. Her blood pressure was 90/60, pulse rate 120 per minute. Examination revealed a penetrating wound near the center of the right iliac crest. There was no exit wound, but the primary bullet fragment could be palpated slightly to the right of the midline just above the symphysis pubis. The abdomen was ovoid, slightly distended, soft, and diffusely tender. A fetus compatible with an eight months pregnancy was easily palpable and apparently was a breech presentation. No fetal heart tones were heard. The right leg was cyanotic, cold and completely paralyzed. Femoral pulsations were equal, but the anterior and posterior tibial pulsations were absent in the right foot. An x-ray of the abdomen showed the suspected fracture of the right iliac crest, a fetus, breech presenting, without a apparent defect, and numerous bone and bullet fragments (Figs. 1 & 2). An x-ray of the right leg showed no evidence of bone or soft tissue damage. Urinalysis and complete blood count were within normal limits.

Because of the probability of intra-abdominal hemorrhage, perforation of the gastro-intestinal tract and perforation of the uterus, exploratory laparotomy under general anesthesia was performed.

Examination revealed approximately 200 cc. of free blood in the peritoneal cavity, an entrance perforation of the uterus at its right broad ligament attachment, and an exit perforation of the uterus on the anterior surface. There was a hematoma of the right broad ligament, and retroperitoneal hematoma of the right lateral peritoneal gutter.

A classical cesarean section was done by extension of the anterior perforation of the uterus, with delivery of a stillborn infant. The infant was found to have perforations of its thoracic and abdominal cavities. The uterine incision was closed in two layers with continuous 0 chromic catgut sutures. The entrance perforation was repaired with interrupted 0 chromic catgut sutures. Hemorrhage in the right broad ligament was controlled by individual suture liga-



Fig. 1

tures. The large vessels of the broad ligament appeared to be intact. The uterus responded well to a direct injection of 1 cc. of Pitocin. Bone and bullet fragments were removed from the peritoneal cavity. Examination of the gastro-intestinal tract, kidney, liver, and biliary system showed no perforations.



Fig. 2

Following abdominal closure, the bullet entrance was debrided and irrigated. The patient's postoperative course was satisfactory, except for the persistent evidence of nerve and vascular damage as demonstrated by pallor, cyanosis, mottling, and edema of the right foot and leg. The patient was treated with Priscoline, continuous caudal anesthesia, refrigeration of the leg at 50 degrees centigrade, and lumbar sympathetic block. By the ninth postoperative day there was definite evidence of gangrene of the toes, and impaired circulation of the leg. The line of demarcation was at the junction of the upper and middle thirds of the leg.

On April 18, 1951 a supracondylar amputation of the leg was carried out. Postoperative recovery following amputation was good, and during 1952 she became pregnant again and had a normal infant by elective cesarean section.

This report supports the advocates of conservation of the uterus, reveals the necessity of individualizations on the question of cesarean section, and adds the distressing problems of nerve and vascular damage which resulted in the loss of an extremity. In retrospect a lumbar sympathectomy at the time of surgery and at least a trial on anticoagulant therapy following surgery were indicated.

REFERENCE

1. Wright, C. H.; Posner, A. C., and Gilchrist, John: Penetrating Wounds of the Gravid Uterus, *Am. J. Obst. & Gynec.* 67: 1085, 1954.

RHEUMATIC DISEASE SYMPOSIUM

There will be a Rheumatic Disease Symposium at the Medical College of Alabama, Birmingham, on Friday May 13. There will be a program of outstanding investigations in the field of arthritis and rheumatism, which will continue throughout the day.

There will be no registration fee.

Advanced Cancer—There are a number of measures which do not call for the use of drugs for relief of pain, which are of great value in the management of the patient with incurable cancer. They approach the problem in other ways. Hormone therapy, for example, is a palliative measure which will at times result in a diminution of pain and an increase in appetite and sense of well being. In advanced cancer of the breast in women before menopause, testosterone is the best hormone preparation to use. In elderly women with cancer of the breast, stilbestrol may occasionally bring about improvement. In cancer of the prostate stilbestrol is often very valuable. —Brown, J. M. A. Georgia, Feb. '55.

Tuberculosis—Today our tuberculosis hospitals are the centers of treatment of this disease and rightly so. All facilities here are available to best treat the patient. Surgery can be used when needed. Every type can be treated, including the far advanced chronic or the terminal case.

At the same time that we have the tuberculosis hospital for treatment we also have a large group pondering the question, "Can treatment be successful at home and how successful?" It is true that some patients may prefer home treatment and that some doctors may be willing to give it at home. Let us stress that at the present time the hospital offers the best opportunity for successful treatment. Certainly where there is a bed shortage, home treatment is important to prevent further spread of the disease and further contamination of those in contact with the patient. It appears that home treatment before hospitalization is not as much favored as home treatment after hospitalization. In some areas of the world, home treatment is being tried while the patient continues to work. Bedrest and good nutrition continue to be very important in the treatment of tuberculosis. This is true whether the antituberculous drugs are used or not. The problem of the need of bedrest and how much is being evaluated directly and indirectly. The answers are being formulated slowly. The problem of home care and how much is in the same status of evolution as the problem of bedrest.

Home care programs require integration of physician, nurse and clinic. Where the general practitioner treats the patient he needs special skills and knowledge of tuberculosis to achieve a good result. This often means increasing education and experience.

Fewer cases are relapsing today on discharge from the hospital than ever before but even with the very best treatment available there are some relapses. The poorer the treatment available and the shorter the course of therapy the more the tendency to relapse. The fact that there are relapses indicates that today's treatment is not the ultimate and that better therapy is needed. The patient with far advanced chronic cavitary tuberculosis who takes one drug at a time and then intermittently and refuses adequate rest and good food is the most likely to relapse. New drugs fortunately so far have been introduced at a fairly rapid pace and have enabled us to keep up fairly well with the patient who has developed resistance to one drug or another. Whether this pace of development of new drugs will hold for the immediate future is conjectural.

The problem of contagion of tuberculosis has always been admitted and it is for this reason that State Health Departments by direction of the State Legislatures have taken a hand in control. Today the problem of contagiousness of the treated case is unsolved. There is some evidence in animal experiments that treated cases are less contagious than those untreated. This may be due to the fact that there is less cough and

sputum in a treated case but it is more likely to be due to the fact that the antituberculous drugs have an effect on the tubercle bacillus—*Newcomer and Sauer, Maryland State M. J., March '55.*

Tonsillectomy—Our policy is always to perform the adenoidectomy first. We regard this sequence as so important that we invariably book the operation, contrary to the usual practice, as adenoidectomy and tonsillectomy. If the child is under 20 months, only adenoidectomy is performed. In children between this age and 30 months, tonsillectomy is proceeded with if the adenoidectomy has given rise to no difficulties and has not been unduly prolonged. Otherwise, the operation is concluded with the removal of the adenoids.

Special attention is always paid to hemostasis, because carelessness in this regard is the most frequent cause of hemorrhage in the immediate postoperative period. We quite agree with Emerson's remark that the techniques of modern surgery have long been neglected by otolaryngologists and we try not to commit that sin of omission. We are always chagrined when primary bleeding occurs from the tonsillar fossa because we regard it as our responsibility.

We try, as far as possible, to employ an atrumatic technique. Carelessness in this regard may mean damage to the wall of a blood vessel, which may rupture in the weakened area when the blood pressure has returned to normal levels. If at the end of the operation there is still oozing from the adenoidal region a postnasal pack is inserted. The tracheobronchial tree is aspirated at the conclusion of the operation whenever it is known or suspected that blood has been aspirated.

After operation the patient is watched carefully until he is fully reacted from anesthesia, partly to see that a satisfactory airway is maintained and partly to detect possible bleeding. A young child is never left alone at any time. All patients are observed regularly while they are in the hospital, and one or the other of us always inspects them at night rounds, six or eight hours after surgery.

When the patient leaves the hospital, usually twenty-four hours after operation, he is provided with written instructions. The period of bed rest is determined by the necessities of the individual case. Bathroom privileges are usually permitted. Instructions are given as to the use of mouth washes, laxatives and other matters, including diet. Because we have no fear that the taking of food will injure the throat, we recommend prompt resumption of the usual diet. Tomatoes, tomato juice and highly seasoned foods are prohibited, but only because they will burn the throat, and the patient, especially if he is a small child, will hesitate to take more food. The taking of solid food keeps the throat and regional muscles supple, while the mere act of swallowing keeps the pharynx clean. Liquids and soft foods do not have this effect.—*McLaurin and Raggio, J. Louisiana M. Soc., March '55.*

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DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

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THE MONTH IN WASHINGTON

Before Congress, and getting some attention but almost no action, is the Hoover Commission's report on federal medical services. Most controversial question is how much medical care the federal government should give to veterans whose disabilities are not a result of their military service. This is ground that has been well plowed before, by the first Hoover Commission, by various studies and reports, and most recently by the American Medical Association's campaign to educate the profession on the non-service-connection situation.

Apathy of Congress may be explained in part by decision of the White House, the week after release of the Commission report, to appoint a commission to inquire into the whole field of veterans' benefits. The group, headed by Gen. Omar Bradley, former VA administrator, is not expected to complete its study until next fall.

A Medical Task Force (14 physicians and one dentist) did most of the spadework for the Hoover Commission. Publication of its report showed that not all the recommendations of the Task Force were accepted by the full Commission. The most notable differences came in veterans' medical care. The Task Force concluded that what is most urgently needed is a firm legal basis for determination of eligibility for medical care. Its solution would be to end eligibility for non-service-connected care three years after separation from service. The Task Force declared that "the very normal incident of fulfilling the duties required of every citizen" should not entitle part of the population to lifelong medical care. The three-year limit, according to the Task Force, would reduce the potential VA patients from 17.5 million to 3 million, at an annual saving of \$150 million. The Commission would not go along with this on the theory that "the sentiment of the American people is that a sick and really indigent veteran should be provided care in VA hospitals." Instead it recommended that: (1) the inability-to-pay statement for non-service care be "subject to verification," (2) a veteran assume an interest-free liability to pay for such care at some future date "if he can do so," (3) the VA close down 20 hospitals, mostly general medical and surgical, (4) outpatient care be furnished indigent veterans with non-service disabilities, and (5)

all veterans laws be brought together into a single code.

The American Legion labeled the Hoover Commission recommendations as "heartless," and "unworthy of serious consideration by informed people." Through Secretary and General Manager George F. Lull, the American Medical Association made these points: (1) closer screening of financial statements already has proved to be ineffective, (2) rejecting the Task Force plan for a three-year cutoff while offering outpatient care would skyrocket costs and defeat the commission's goal of eliminating wasteful spending and unnecessary intrusion by the government in private affairs.

The Commission has other equally important, if not as controversial, proposals. Among them are:

Closing down of general medical hospitals of the Public Health Service, elimination of free medical care for merchant seamen, extension of contributory health insurance to military dependents and other U. S. beneficiaries along lines of the proposed program for federal civilian employees, regionalization of military hospitals with one department in command of all hospitals in each area, creation of a Federal Advisory Council of Health with physician and lay members who would advise the President on both governmental and national health problems, and creation of a National Medical Library out of the present Armed Forces Medical Library. Copies of both Commission and Task Force reports are available at the Government Printing Office, Washington 25, D. C.

Secretary Hobby of the Department of Health, Education and Welfare, testifying on all the administration's proposals, opened a series of health hearings before the House Interstate and Foreign Commerce Committee. Pressed to make a choice, she indicated that the two most important parts of the six-part omnibus health bill were reinsurance of health plans and federal guarantee of mortgages for health facilities.

But the committee decided that first priority should go to mental health proposals. Accordingly the following week it started hearings on that part of the omnibus bill calling for a 5-year program of grants to states for mental health projects. Also before the committee was the chairman's bill for a national study of mental illness prob-

lems, to be financed by the United States but conducted by private groups.

Holding priority on the Senate side was legislation for a 5-year, \$250 million program for aid to medical schools, sponsored by Chairman Hill of the Labor and Public Welfare Committee.

WHY A MEDICAL SOCIETY

"No class of men needs friction so much as physicians; no class gets less. The daily round of a busy practitioner tends to develop an egoism of a most intense kind, to which there is no antidote. The few setbacks are forgotten, the mistakes are often buried, and 10 years of successful work tend to make a man touchy, dogmatic, intolerant of correction, and abominably self-centered. To this mental attitude the medical society is the best corrective, and a man misses a good part of his education who does not get knocked about a bit by his colleagues in discussions and criticisms.

"The very marrow and fitness of books may not suffice to save a man from becoming a poor, mean-spirited devil, without a spark of fine professional feeling, and without a thought above the sordid issues of the day.

"The promotion and dissemination of medical knowledge throughout the state remains our important function. Physicians as a rule have less appreciation of the value of organization than the members of other professions. In large cities weakness results from the breaking into cliques and coteries, the interests of which take precedence over others of wider and more public character. Jealousies and misunderstandings are not unknown, and there is a baneful individualism—every man for himself—a centrifugalizing influence against which the society is and has been the only enduring protest.

"The man who knows it all and gets nothing from the society reminds one of that little dried-up miniature of humanity, the prematurely senile infant, whose tabetic marasmus has added old age to infancy. Why should he go to the society and hear Dr. Jones on the gastric relations of neurasthenia when he can get it so much better out of the works of Einhorn or Ewald? He is weary of seeing appendices, and there are no new pelvic viscera for demonstration. It is a waste of time, he says, and he feels better at home, and perhaps that is the best

place for a man who has reached this stage of intellectual stagnation."—*Counsels and Ideals from the Writings of William Osler.*

A RESOLUTION

WHEREAS, Dr. Marion Toulmin Gaines was a distinguished physician, a scholar in the fields of history and literature as well as of medicine, and a citizen whose activities and good works were as varied and numerous as his interests; and

WHEREAS, Doctor Gaines served his patients, his community, his State, and his profession long and notably, not only in his quiet and dignified private life but also in positions to which he was elected because of the esteem and faith of his colleagues; and

WHEREAS, His opportunities of service and leadership included Presidency of this Society and of the Medical Association of the State of Alabama,

Counselor from Alabama to the Southern Medical Association, the teaching of medicine, medical military service, Board of Health, Mobile Library Board, and many other voluntary activities in a wide range of civic affairs; and

WHEREAS, We must at this time note the end of this life of inspiration and service; therefore be it

RESOLVED, That we express and record herein the respect, high regard, affection, and appreciation, which we, the members of the Medical Society of Mobile County, have had for Doctor Gaines; and be it further

RESOLVED, That copies of this Resolution be sent to members of his family, to the Secretary of the State Medical Association, and to the press.

Adopted by

The Medical Society of Mobile County
February 17, 1955.

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

PHYSICIAN-AGE SURVEY

W. A. Dozier, Jr.

Director of Public Relations

There are several reasons for conducting a physician-age survey, but perhaps this one was motivated primarily to quell a few doubts and to give accurate substantiation to general impressions which were held by some. Then, too, any planning needs to be predicated upon as much accurate information as is at hand.

For this study, the physicians considered were not limited to Medical Association members only. Wherever possible non-members were used also, so as to give as complete a picture of medical service available as was possible. Most of the ages of the physicians were gotten from the files at the State Department of Health, but in some instances the men had to be written and asked for their birth date. These were entirely within the older age brackets. The study was made as of June 1, 1954, that being when the survey was actually begun. The 1950 census was used in determining the size of the town.

This survey will become more meaningful some three, five, or ten years from now when a resurvey can be made for comparative purposes. Actually, only statements referring to the specific study date can be made at this time. From such a study as

this one, it is possible to estimate the rate of depletion of the medical ranks; but this was not felt necessary at this time as the number of physicians in the state has risen constantly, though slowly, during the past five years at least. Despite these two defects, if they be such, there are a number of interesting facts which grew out of the study.

Table I shows the number of physicians within specified age groups. This table points up a fallacy in some of the thinking of the past few years. It has been felt by some that the Alabama physicians were mostly older men and that the young men were not coming into the state. Since it is the number and percentage in active practice that are of interest here, it can be seen from those two columns that the 30-39 age group has the largest number of practicing physicians. Also 57% of the men are under fifty years of age.

The distribution of physicians by size of town is given in Table II. Again prime interest is in those in active practice. Since Alabama is so predominantly rural, interest lay primarily in towns of 25,000 and under. Many people have thought for some time that the larger centers had ample medical service, even though there might be instances where some specific type of service was not plentiful enough. From this table,

TABLE I. ALABAMA PHYSICIANS BY AGE GROUPS
JUNE 1, 1954

Age of physicians	Number of physicians	Percentage of total physicians	Number not in active practice	Number in active practice	Percentage of total in active practice
Under 30	37	2	5	32	2
30-39	629	31	71	558	30
40-49	478	23	15	463	25
50-59	287	14	17	270	14
60-69	290	14	16	274	14
70 and above	336	16	45	291	15
Total	2,057	100	169	1,888	100

TABLE II. DISTRIBUTION OF ALABAMA PHYSICIANS BY SIZE OF TOWN
JUNE 1, 1954

Size of town	Number of physicians	Percentage of total physicians	Number not in active practice	Number in active practice	Percentage of total in active practice
0-2,500	369	18	38	331	18
2,500-5,000	157	8	16	141	7
5,000-10,000	226	11	28	198	11
10,000-25,000	271	13	20	251	13
Above 25,000	1,045	50	70	975	51
Total	2,068	100	172	1,896	100

TABLE III. DISTRIBUTION OF PHYSICIANS IN ACTIVE PRACTICE
ACCORDING TO AGE AND SIZE OF TOWN
JUNE 1, 1954

Size of town	Phys. under age 30	% of age group	Phys. age 30-39	% of age group	Phys. age 40-49	% of age group	Phys. age 50-59	% of age group	Phys. age 60-69	% of age group	Phys. age 70 and above	% of age group
0-2,500	7	22	78	14	44	9	35	13	60	22	100	34
2,500-5,000	5	16	43	8	27	6	22	8	19	7	26	9
5,000-10,000	5	16	59	10	49	11	24	9	31	11	29	10
10,000-25,000	4	12	70	13	76	16	34	13	40	15	27	9
Above 25,000	11	34	308	55	267	58	155	57	124	45	109	38
Total	32	100	558	100	463	100	270	100	274	100	291	100

it might be argued that more physicians are needed in the smaller communities, especially when it is realized that 51% of the actively practicing physicians are in towns of more than 25,000 population. Of great interest, however, is the fact that 18% are in communities of less than 2,500. No explanation is presently available for the small percentage in towns of 2,500 to 5,000.

Table III is a combination and further breakdown of Tables I and II. Perhaps the most significant fact in this table is found

within the age group under thirty. Here it is found that 66% of the group has settled in the smaller towns. Not until the 60-69 age group is reached does the percentage in the smaller towns again exceed those in the larger centers. Organized medicine and the medical colleges have been emphasizing the need in rural areas for several years now. These figures may indicate that the trend toward a physician's settling in larger areas can and may actually be reversed.

STATE DEPARTMENT OF HEALTH

BUREAU OF ADMINISTRATION

D. G. Gill, M. D.
State Health Officer

DANGEROUS DETOURS TO NONMEDICAL HEALERS

Contributed by
Nadine Pitts, Director
Division of
Public Health Education

A highway detour sign is one which few motorists dare disregard. The detour may be set up because the usual roadway is a topsy-turvy mass of soil and gravel, in the process of construction or reconstruction. Even dry, loose soil can wreak havoc with the mechanisms of automobiles and trucks. And when heavy rains turn the topsy-turvy mass into a sea of mud, the dangers that automobile travel will be stopped completely or at least slowed down considerably are even greater.

Unfortunately, however, all detours do not work as well as highway detours for public safety and health. Detours to non-medical practitioners, for example, can rob persons of their very lives. This is the greatest harm that can come of seeking medical help from those persons not qualified to give such help. Still another important item is the money, said to number in the millions of dollars annually, which is spent or rather wasted on quack treatment or "quick cures." Such "quick cures" rarely can stand the test of medical usefulness and effectiveness. And time and time again, such treatment is shown up for what it is—a fallacy thrust upon an unsuspecting public.

Public health agencies and others have long been concerned with the tragic delay involved in the patronage of quack healers by some individuals. The problem has been particularly frustrating in cancer cases, for example. When the detour to a nonmedical practitioner occurs during the early stages of this disease, it often becomes the deciding factor between control of the disease and fatality. Although most, if not all, states have laws forbidding the practice of medicine by nonmedical practitioners, such offenders continue to exist even in areas where there is constant vigilance to ferret

them out. Moreover, it is not always easy to determine who the offenders are. Nor has a great deal of authentic information been brought together in one place about the patients of quack healers, and why these patients patronize such healers with "quick cures" to begin with.

Given this setting, a recent article, "Why Do People Detour to Quacks?" in the *Psychiatric Bulletin* is especially timely. The article reports on a preliminary investigation of a sample of twenty patients who detoured to nonmedical sources when cancer was suspected. The investigation was designed to determine the factors involved in such detouring behavior, as well as to answer other pertinent questions.

To begin with, the investigation indicated that there are four categories of patients who seek nonmedical treatment. In the words of the report: "There are the miracle seekers, the uninformed, the restless ones and the straw-grasps." Furthermore, the investigation revealed that these four groups may detour prior to, during, or following orthodox medical care. The miracle seekers—persons who look for a sure cure overnight—and the uninformed were the groups who were most likely to go to the quack first, and to a doctor later. On the other hand, the "restless" category included the individuals who went first to doctors, then to nonmedical healers, and then returned for medical treatment. Finally, the straw-grasps turned to quacks only after receiving treatment from physicians.

The names given to the four groups of the quacks' patrons are in themselves revealing. However, the report elaborates still further with specific examples of each type. The miracle seeker is typified by a Negro woman who sent for a prayer cloth when she realized she had cancer of the breast. For six long, important months, she depended on the prayer cloth to remove, somehow, the mass in her breast. When, finally, she did attend a cancer clinic, her disease had progressed to the uncontrollable stage. The x-ray machines which were used—in vain—were mysterious to the woman who clung to the belief that the prayer cloth failed to

remove the cancer because of her sins!

The uninformed group most often included persons with little education, the survey found. However, there were some exceptions. The case of an intelligent, forty-two-year-old man is cited. Although he had finished high school and had taken a business course, he maintained that he did not know the difference between a licensed medical doctor and others who call themselves "doctor." His only experience with hospitals and doctors was a tonsillectomy in childhood. "I went to this man because I heard he was good with cancers," according to his own matter-of-fact statement!

The restless individuals who detoured to quacks, only later to return for orthodox medical treatment, grew impatient or dissatisfied with one or more aspects of accepted medical practice. One man, age fifty-three, failed to understand the necessity for the customary two-week diagnostic period. This is the amount of time it takes some clinics to run the series of laboratory tests needed for an accurate analysis of the particular patient's case. No treatment whatsoever is started before this preliminary work is done. Before this particular man's tests were completed, he stopped going to the clinic and went, instead, to a healer who gave him treatment within an hour. When he returned to the cancer clinic several months later, he remarked to clinic personnel that because it took so long to get anything done at the clinic, he got "antsy."

Still another example of the restless type was the man of forty-six whose doctor recommended surgical treatment for his cancer. He backed away from the very thought of the surgeon's knife, and sought, rather, the help of a man who recommended only "pills and ointment."

The so-called straw-graspers endanger their health perhaps least of all the groups which patronize quack healers. These are the patients whose diseases—in the case of cancer—have reached the terminal stage. They are the ones whose doctors have told them, reluctantly, "We have done all that we can, all that medical science at the present time, knows to do." And they are also the people who feel that they must continue to do something, try anything. The mother of a three-year-old child told of taking her little girl to a man she heard was successful with his treatment: a series of shots for can-

cer. ". . . I had to know that I had done everything humanly possible to save her," she explained. The *Psychiatric Bulletin* article does not tell us the outcome of this particular case. But of this we can be sure: to date, there are in existence no miracle shots or injections which will cure cancer!

With the experience of these patients of quack healers fresh in our minds, let's take a look at the way in which the nonmedical practitioner operates. How can the fact that he draws patients to him, despite the evidence that his treatment is far from medically effective, be explained? First of all, the quack's approach to cancer, as well as to other ailments, is a positive one. His explanation of the cause of cancer is a good example. "Tumors result from the loss of control of the innate intelligence of certain parts and functions of the body," he maintains, with finality. It must be said that such an answer makes little sense or none at all to the average person. But to at least some of the quack's patients—obviously—it has more meaning than the doctor's medical terminology.

Cancer research men continue to work around the clock to find, if they can, the answer to why certain tissues in the bodies of some individuals develop into malignant growths, which often spread to other body areas. When some or all of these answers are found, the researchers will be well on their way to discovering additional means of destroying such growths and preventing their spread. In the meantime, doctors readily admit that they do not know all the answers to questions regarding this disease which wipes out so many lives each year. In Alabama alone, vital statistics provisional figures list 3,074 cancer deaths in a single year, 1953.

This, then, is the situation: scientific research and orthodox medicine, on the one hand, with treatment which is effective in many cases, and especially helpful for the patients whose cancer is discovered and treated in the early stages. The quack with his approach and lack of effectiveness stands at the other end of the pole; none of his "quick cures" can come out on top when submitted to rigid scientific tests of their usefulness. And yet, because he is so positive that he knows all the right answers, he is able to convince some individuals that he can, indeed, help them. The gullible people whom the quack does succeed in luring into

his trap waste their money, because the nonmedical practitioner, whatever else he can do, cannot cure a true case of cancer with the means at his command. But far more important than the money involved is the time that is slipping by, when the disease is in the early stage and when it responds most frequently and readily to orthodox medical treatment at the hands of a licensed doctor.

For all the questions of the practical man, the quack has ready answers. One question often put to the nonmedical healer is, "How can one form of treatment be so beneficial for so many types of ailments?" And the quack's answer—not the real answer, that it cannot—comes back as positive as before, "When injected into the body, these medicines enable the body to produce its own defense mechanism and thus bring about a curative action." Here we have a pleasant theory, but it is only that and nothing more. It simply does not and will not work. Much as the human race would like a panacea for all its ills, one has not been discovered. What the quack has really done is to oversimplify or perhaps modify the vaccine principle, which does work. A vaccination consists of injecting into the human body a small quantity of dead or weakened, live germs or viruses. These germs result in a mild case of a particular disease, and thus help the body to build antibodies to defend itself against the real disease. But the vaccination must be specific: typhoid toxoid vaccine to confer immunity against typhoid fever, and smallpox vaccine to fight smallpox. No public health department or doctor would think of giving a person a typhoid vaccination, for example, to protect him against smallpox. For experience has shown that such a practice does not work. Moreover, vaccinations have been found to be effective in combating only infectious diseases up to this point. And research has found no good reasons for believing that cancer is infectious; on the contrary, quite the opposite—that it is not infectious—appears to be true of this disease. The quack thus stands alone by proclaiming in print and by word-of-mouth that it is infectious, although he cannot show us the proof.

In summary, the harm that nonmedical practitioners do can perhaps best be shown by repeating here the scathing denunciation of quackery issued by a judge in a Chicago federal court several years ago. As re-

printed in the *Journal of the American Medical Association*, his words directed against a particular group of healers and their treatment were in part:

"You have imposed on the poor sick, who, in their anxiety, for relief would try anything at any price. You have fooled the trusting, the credulous and the gullible. The quackery you have employed is more despicable because those who were deceived into believing in your fake remedy failed to pursue the treatment proved by medical science to be effective in preventing and curing disease. The credulous belief in efficacy of your useless product is the greatest danger inherent in quackery. It discourages and prevents those who use it from seeking proper medical treatment and the results of such neglect are often fatal The law-enforcing agencies should be diligent in protecting the public from the conduct of these charlatans."

Afibrinogenemia in Pregnancy—Whenever possible, treatment should be directed toward prevention of the factors which may lead to the hypofibrinogenemia. Toxemia of pregnancy, with or without premature separation of the placenta, constitutes one of the most common causes of hypofibrinogenemia. The usual efforts should be made to control toxemia insofar as possible. In the event of known intrauterine fetal death, frequent determinations of fibrinogen levels as denoted by the clot observation test will often serve as an index for admitting the patient to the hospital and initiating the proper replacement therapy by fibrinogen.

The etiology of amniotic fluid emboli is not known; however, it is commonly seen in older multiparous patients, and particularly in those who have tumultuous labors either of spontaneous origin or induced by posterior pituitary extract. Medical induction by posterior pituitary extract should be carefully avoided in the latter group, unless there is sufficient reason to justify the possible risk.

In the presence of any serious degree of premature separation of the placenta, immediate rupture of the membranes has been recommended. Rupture of the membranes likewise would seem to be indicated when there is evidence of amniotic fluid embolism, or as early as feasible during labor in the patient who has known intrauterine fetal death. The purpose of this measure is to release a large amount of fluid with its high concentration of thromboplastin. In addition, with rupture of the membranes there is a greater tendency for all intrauterine products to drain toward the outside rather than to be forced into the maternal blood stream.

Purified fibrinogen is now available on a commercial basis, and can be given separately without the other blood constituents.—*Donnelly & Kearns, North Carolina M. J., Feb. '55.*

DEPARTMENT OF HEALTH

BUREAU OF LABORATORIES
Thomas S. Hosty, Ph.D., Director
SPECIMENS EXAMINED

January 1955

Examinations for diphtheria bacilli and Vincent's	189
Agglutination tests	608
Typhoid cultures (blood, feces and urine)	594
Brucella cultures	11
Examinations for malaria	63
Examinations for intestinal parasites	2,992
Serologic tests for syphilis (blood and spinal fluid)	21,145
Darkfield examinations	4
Examinations for gonococci	1,455
Examinations for tubercle bacilli	3,600
Examinations for Negri bodies	121
Water examinations	1,619
Milk and dairy products examinations	5,117
Miscellaneous examinations	968
Total	38,486

BUREAU OF PREVENTABLE DISEASES
W. H. Y. Smith, M. D., Director
CURRENT MORBIDITY STATISTICS

1955

	Dec.	Jan.	E. E. [*]	Jan.
Typhoid and paratyphoid fever	3	3	3	
Undulant fever	0	0	2	
Meningitis	8	24	10	
Scarlet fever	79	79	57	
Whooping cough	78	114	80	
Diphtheria	12	17	27	
Tetanus	6	3	2	
Tuberculosis	136	175	179	
Tularemia	0	0	1	
Amebic dysentery	0	1	2	
Malaria	0	0	2	
Influenza	1021	4547	771	
Smallpox	0	0	0	
Measles	103	213	135	
Poliomyelitis	5	4	6	
Encephalitis	0	2	0	
Chickenpox	204	338	273	
Typhus fever	0	0	7	
Mumps	106	148	124	
Cancer	522	469	326	
Pellagra	0	0	1	
Pneumonia	216	576	256	
Syphilis	101	212	498	
Chancroid	6	12	8	
Gonorrhea	289	507	423	
Rabies—Human cases	1	0	0	
Positive animal heads	26	48	0	
	Jan.	Feb.	E. E. [*]	Feb.
Typhoid and paratyphoid fever	3	1	3	
Undulant fever	0	1	1	
Meningitis	24	17	16	
Scarlet fever	79	84	52	
Whooping cough	114	96	94	
Diphtheria	17	11	23	
Tetanus	3	1	2	
Tuberculosis	175	197	189	
Tularemia	0	1	2	
Amebic dysentery	1	4	2	
Malaria	0	0	5	
Influenza	4547	4660	2051	
Smallpox	0	0	0	
Measles	213	252	486	
Poliomyelitis	4	4	5	
Encephalitis	2	0	0	
Chickenpox	338	350	328	
Typhus fever	0	1	2	
Mumps	148	346	164	
Cancer	469	371	305	
Pellagra	0	0	2	
Pneumonia	576	453	364	
Syphilis	212	151	537	
Chancroid	12	1	9	
Gonorrhea	507	326	364	
Rabies—Human cases	0	0	0	
Positive animal heads	48	35	0	

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF VITAL STATISTICS

Ralph W. Roberts, M. S., Director

PROVISIONAL BIRTH AND DEATH STATISTICS FOR DECEMBER 1954

	Live Births, Stillbirths and Deaths by Cause	Number Registered December 1954	Rates (Annual Basis)				
			Total	White	Colored	1954	1953
Live births	7025	4354	2671	25.8	26.7	26.8	
Stillbirths	146	70	76	20.4	21.1	25.6	
Deaths, stillbirths excluded	2448	1400	1048	9.0	9.5	9.7	
Infant deaths under one year	278	122	156	39.6	37.6	40.0	
under one month	172	96	97	24.5	23.4	24.0	
Cause of Death							
Tuberculosis, 001-019	39	22	17	14.3	15.6	12.8	
Syphilis, 020-029	17	4	13	6.2	2.6	2.3	
Dysentery, 045-048	1		1	0.4	0.4	0.4	
Diphtheria, 055	3		3	1.1	0.8	0.4	
Whooping cough, 056	1		1	0.4	0.8	0.8	
Meningococcal infections, 057	1	1		0.4	3.0	3.4	
Poliomyelitis, 080, 081	1		1	0.4	0.4	1.1	
Encephalitis, 082, 083					0.4		
Measles, 085	1		1	0.4			
Malignant neoplasms, 140-205	291	201	90	106.9	99.1	96.7	
Diabetes mellitus, 260	36	21	15	13.2	10.4	10.9	
Pellagra, 281	2	1	1	0.7	0.8	0.8	
Vascular lesions of central nervous system, 330-334	279	154	125	102.5	122.5	127.2	
Other diseases of nervous system and organs of special sense, 340-398	39	21	18	14.3	10.8	17.3	
Rheumatic fever, 400-402	8	4	4	2.9	2.2	0.8	
Diseases of the heart, 410-434	606	417	189	222.7	220.9	297.7	
Hypertension with heart disease, 440-443	152	64	88	55.8	61.3		
Diseases of the arteries, 450-456	49	28	21	18.0	22.3	14.3	
Other diseases of the circulatory system, 444-447, 460-468	35	18	17	12.9	19.7	16.6	
Influenza, 480-483	29	15	14	10.7	7.8	13.5	
Pneumonia, all forms, 490-493	116	58	58	42.6	44.6	40.6	
Bronchitis, 500-502	4	2	2	1.5	2.2	3.4	
Appendicitis, 550-553	1		1	0.4	1.5	1.5	
Intestinal obstruction and hernia, 560, 561, 570	16	11	5	5.9	4.5	3.8	
Gastro-enteritis and colitis, under 2, 571.0, 764	7	4	3	2.6	3.0	4.9	
Cirrhosis of liver, 581	15	13	2	5.5	5.6	5.6	
Diseases of pregnancy and childbirth, 640-689	7		7	9.8	13.6	20.5	
Sepsis of pregnancy and childbirth, 640, 641, 645.1, 651, 681, 682, 684	1		1	1.4		2.7	
Congenital malformations, 750-759	38	25	13	5.4	4.5	4.8	
Accidental deaths, total 800-962	155	90	65	56.9	81.3	74.9	
Motor vehicle accidents, 810-835, 960	53	33	20	19.5	36.8	24.8	
All other defined causes	360	190	170	132.3	140.0	151.3	
Ill-defined and unknown causes, 780-793, 795	136	34	102	50.0	46.4	53.1	

Rates: birth and death rates per 1,000 population; infant deaths per 1,000 live births; stillbirths per 1,000 deliveries; maternal deaths per 10,000 deliveries; deaths from specified causes per 100,000 population.

BOOK ABSTRACTS AND REVIEWS

The Physician and His Practice. Edited by Joseph Garland, M. D. Cloth. Price, \$5.00. Pp. 270. Little, Brown and Company, Boston and Toronto, 1954.

The foreword states that this book "has been planned primarily as a source book of information" regarding a young physician's career. There are eighteen treatises, each by a different author, which are designed to answer many of the questions or alleviate some of the doubts facing a beginning practitioner. For example, several chapters relate to the large problems of what type of practice should be pursued, what is the proper relationship to the community and to the profession, and how should an office be set up and run.

There is no question but that the book can be of real value to medical students, interns, and residents. Many problems dealt with by the various authors are the same ones with which students have coped for years. It is true that sections are repetitious, that complete answers are not necessarily given, and that certain sections could be controversial; but frank opinions are stated. These should make the reader think and decide for himself.

There is a grave question as to how many practicing physicians will read the book and measure their own actions by it. Part of the work is likely to be considered too elementary by a man already in practice. However, from a public relations angle there are several chapters which, if read and acted upon, could be of great value. An instance in point is the chapter on Office Records. In fact, practically all authors take the public relations aspect into consideration, and this within itself is significant.

The book is well written, very readable, and full of good, sound advice. It should be of value to those who are preparing to embark upon a life of medical practice.

W. A. Dozier, Jr.

Hugh Roy Cullen: A Story of American Opportunity. By Ed Kilman and Theon Wright. Cloth. Price, \$4.00. Pp. 376. New York: Prentice-Hall, Inc., 1954.

Here is the action-packed story of a rugged American individualist set against a backdrop of history. Hugh Roy Cullen's life is inextricably bound to the picturesque saga of the oil drillers of Texas, for what his biographers choose to call Cullen's knowledge of "creekology" enabled him to become the most successful "wildcatter" of them all.

The authors, both newspapermen, have done, on the whole, a good job of reporting the events of the millionaire's life. Their straightforward style makes for easy reading, but not for a literary masterpiece. Pieced together in chronologic

order are Cullen's experiences as a teen-ager, when he left school to take a job; his careers, first as a cotton broker, then as a real estate man, and finally as an oil producer.

However, some readers will perhaps grow weary of the authors' repetition of certain phrases for the sake of emphasis. In detailing Cullen's philosophy of life, Kilman and Wright spell out not once but many times such expressions as "I never tried to out-trade a man, and I never let a man out-trade me."

Moreover, this reviewer regrets that the analysis of one of the country's most unusual philanthropists was not more searching. The authors merely "scratched the surface," so to speak, of the man who gave away so many of his millions during his lifetime. Cullen's generous financial support was a primary factor in the phenomenal growth of the University of Houston. Contrary to the practice of many wealthy men—that of bequests to charitable institutions at or after their deaths—Cullen gave away over a period of years ninety-three per cent of his fortune. In one forty-eight hour period alone, he gave Houston's four hospitals more than a million dollars each!

Nadine Pitts

Fundamentals of Anesthesia. Prepared under the editorial direction of the Consultant Committee for Revision of Fundamentals of Anesthesia, a publication of the Council on Pharmacy and Chemistry of the American Medical Association. Cloth. Price, \$6.00. Pp. 279, with 89 illustrations and 19 tables. W. B. Saunders Company, Philadelphia and London, 1954.

The third edition of this book was prepared ten years after the second edition which so successfully filled its purpose as a source of instruction and guide to medical officers in anesthesia during World War II. The revision of this work has been so thorough that it is an entirely new work, bringing the subject of anesthesia completely up to date. However, the outline form and brevity, together with many of the illustrations which made the earlier editions so invaluable, have been retained.

Smaller type and inclusion of much of the information of this book in the form of tables make for a complete coverage of the subject comparable to much larger texts. There are chapters on the Physiology of Respiration, Chemistry and Physics, Preoperative Care, General Anesthesia, Regional Anesthesia, Obstetrics, Pediatric and Geriatric Anesthesia, Postoperative Care, Complications of Anesthesia, and a chapter on various types of therapy of interest to the anesthesiologist.

It is a book which should be in the library of every student and practitioner of anesthesia, and because of the form, brevity, and completeness

with which the material is presented, it is a volume which might well be used by surgeons and allied specialists as a source of information on anesthesia of the present day.

W. P. May, M. D.

Student Guide in Nursing Arts. By M. Esther McClain, R. N., M. S. Third edition. Cloth. Price, \$3.00. Pp. 205. The C. V. Mosby Company, St. Louis, 1954.

This book presents an outline in nursing arts, with titles of the units being the same as those outlined in the curriculum guide for schools of nursing.

Each unit is outlined with objectives, references, and important points for discussion under each lecture topic.

Sufficient space is provided for student notation and would eliminate other note-books in nursing arts if followed closely. The author also gives excellent review questions at the end of each unit as a study help. The book would be of great benefit to a student as an easy reference for her entire period of training. I feel it could not be used effectively without a nursing arts' text and therefore would be quite expensive for most schools of nursing. However, I highly recommend it as an effective tool in nursing arts.

Jane E. Choate

Urology, Volumes I, II, and III. Edited by Meredith Campbell, M. S., M. D., F. A. C. S., Emeritus Professor of Urology, New York Uni-

versity. With the collaboration of fifty-one contributing authorities. Cloth. Price, \$60 per set. Pp. 2356, with 1148 illustrations. W. B. Saunders Company, Philadelphia and London, 1954.

In an effort to make this more an authority on urology, the editor has called on many contributors in this country and abroad.

The anatomy, physiology and embryology are given ample attention. Also, there are sections on urologic examination and the pathology of urinary obstruction. There is a complete chapter on parasitic diseases.

There has been some overlapping of material because of the number of contributors but this does not detract from the work.

Surgical procedures and technique, as well as preoperative and postoperative care and complications, are well covered. For instance, the chapters on suprapubic prostatectomy, perineal prostatectomy, transurethral resection of the prostate, and retropubic prostatectomy are written by as many authors who have special training in that particular procedure.

Newer concepts in the field of urology are brought up to date in this text. This is notable in the chapters on renal function, renal aortography, infertility, endocrinology and the adrenals.

This may well be the best available reference work on urology today. Urologists and those doing urologic surgery will find it a valuable asset to their library.

J. W. Davis, Jr., M. D.

AMERICAN MEDICAL ASSOCIATION NEWS

"PLEASANT" EFFECTS OF NARCOTICS DISPROVED

Some narcotics believed to produce pleasant stimulation just don't live up to their reputation under careful study, according to three Boston physicians.

Much of the result of taking narcotics depends on the person and the situation, Drs. Louis Lasagna, John M. von Felsinger, and Henry K. Beecher, of Harvard Medical School and Massachusetts General Hospital, reported in the March 19 Journal of the American Medical Association.

They found that normal persons don't get much "kick" out of such well-known narcotics as morphine and heroin. On the contrary, normal volunteers felt sleepy, depressed, and generally unpleasant after taking experimental doses.

The physicians, seeking knowledge on the use of drugs as pain killers, tested several drugs on 80 volunteers. Twenty were

healthy young men students, 30 were chronically ill, old, and hospitalized, and 30 were "postaddict" prisoners at the U. S. Public Health Service Hospital, Lexington, Ky.

None of the volunteers knew whether they were receiving amphetamine (Benzedrine), morphine, heroin, pentobarbital, or a "dummy" shot of salt solution. Their reactions were studied by check lists and by written descriptions of their feelings. The questionnaires covered thinking and concentration, mood, degree of wakefulness, and physical effects such as palpitation, nausea, or dizziness.

In normal persons, almost all the drugs proved depressing. The volunteers frequently complained of dizziness, itchiness, nausea, and shakiness. Even a narcotic which at first seemed pleasant later became depressing and unpleasant.

Amphetamine seemed to be most likely to produce pleasantness among the normal

volunteers, and the physicians said it also appears to be a useful drug for the chronically ill. Many of the ill patients tested said their pain decreased and they felt "pleasant," largely because of "gratitude" for pain relief.

Results with prisoners who had been addicts or were undergoing treatment for addiction were very different. While most of the normal volunteers said their ability to think was dulled, the postaddicts said theirs was improved. But the physicians said many of the reactions by the postaddicts depended on previous experience, their attitude toward certain drugs, and the fact that they were in prison.

These results showed that there is no basis for "sweeping generalizations" as if drugs produced certain set effects in all persons at all times, the physicians said.

"It is obvious that the subjective effects of drugs, no less than the objective effects, are dependent on the situation in which the drug is administered," they said. "It is also likely that the production of a given mental state, even in the same situation, will not prove equally pleasant to all persons."

As a result, the reactions to the experiment did not always agree with textbook descriptions of drug effects. Fact-finding on the medical usefulness of drugs is made more difficult, and predicting possible addiction by old or new drugs is complicated, by several factors. These include the difference between addict and non-addict reactions, the social problem of using normal volunteers for tests, and the psychological difference between taking drugs as medicine and taking them illegally. However, in a controlled experiment "meaningful data" can be obtained.

Much further research and a "more sophisticated and scientific approach" is needed, the physicians said. They also advised careful distinction between law enforcement problems in illicit narcotic traffic and safeguards in the legitimate use of drugs.

HEAVY COFFEE DRINKING PROBABLY NOT HARMFUL

Drinking 20 to 30 cups of coffee a day probably wouldn't hurt you—unless you were not completely healthy to begin with.

Two consultants gave this opinion in answer to a query from a Connecticut phy-

sician in the March 19 Journal of the American Medical Association.

One consultant said caffeine in coffee may cause nervousness, tremor, flashes of light or hearing difficulty, insomnia, headaches, and a variety of other minor difficulties. But these "ordinarily are not serious and disappear promptly if the use of coffee is stopped." In persons with organic disease such as heart, nerve or intestinal disorders, he said the effect could be harmful and the excessive use of coffee should be avoided.

The second consultant said caffeine and other substances in coffee certainly could be harmful to a peptic ulcer patient, and may cause some heart-circulation difficulties and even loss of weight (from increases in work output under the influence of caffeine). But he said anyone who has to ask his physician whether 20 or 30 cups of coffee are hurting him must not be experiencing any ill-effects.

ARMY IMPROVES INSERTS FOR HEARING AIDS

Army researchers have developed a soft plastic ear insert which should be a big improvement in hearing aids, radio receiver headsets, and as a protection against excessive noise.

Major James P. Albrite, director of the audiology and speech correction center at Walter Reed Army Medical Center, Washington, D. C., described the new earpiece in the February Archives of Otolaryngology, published by the American Medical Association.

He said that while the ear insert is not commercially available yet, it "undoubtedly would find wide acceptance by the thousands of hearing aid users." He said it even might be used as protection against infection and pressure which trouble persons in underwater activities.

The soft plasticized material is poured into a cast made from a mold of the ear and its inner canal; then it is stamped with a sound channel and recess for a receiver. The whole process takes about two-and-one-half hours and causes no discomfort to the patient. About 1,300 inserts have been issued at the center and patients reported they are comfortable to wear.

In addition to greater comfort, the soft insert fits so well that it eliminates interference with sound reception, and reduces

the danger of inner injury in case of a fall or blow.

The earpieces were used for radio communication by 25 flight officers with "satisfactory results," Dr. Albrite said, and they might replace the headset-and-receiver now being used. The soft insert may overcome objections to hard ear defenders used by persons in noisy environments. The regular type of defender is almost always considered uncomfortable, and is difficult to fit. Further research is being done to suit the insert for this purpose and also for use underwater.

Dr. Aram Glorig, of the American Academy of Ophthalmology and Otolaryngology, suggested the soft insert. It was developed by Carl A. Nielson and Theodore J. Bushey, Army Prosthetics Research Laboratory, and Ransom L. Currens, of the Audiology and Speech Correction Center at Walter Reed.

COMMUNITY CAN HELP STOP RHEUMATIC FEVER

Community action in discovering and properly treating children with streptococcal sore throats can help prevent rheumatic fever according to two Ohio physicians.

Drs. William H. Bunn and Hugh N. Bennett, Youngstown, reported on a community program to prevent and control the disease, in the March 19 Journal of the American Medical Association.

Research has shown a relationship between streptococcal sore throats and later attacks of rheumatic fever. If streptococcal sore throats are adequately treated with penicillin the disease organisms can be eliminated and a first attack of the more serious disease prevented. It is important, however, that treatment be given before the first attack damages the heart. Detecting patients in this stage has been "a worrisome problem," the physicians said.

"A serious disease, responsible for a great deal of sickness, disability, economic loss, and death, can be prevented by an inexpensive drug, easily administered, if the patient can be detected," they said. While a community program is not the entire answer, it can help in alerting those concerned to the need for proper treatment.

The Youngstown Heart Association sponsored a community program of education in the dangers of sore throats and the need for proper treatment.

The educational program consisted largely of talks by association visiting nurses to principals, teachers, school nurses, and health chairmen of parent-teacher associations. All children were given considerable literature to take home to their parents, and those sent home with sore throats carried an explanatory note.

A selected group of children with sore throats were first tested, and those with danger signals sent home. Later the program was expanded and any child suspected of not feeling well or with a complaint of sore throat was sent to the school nurse. Those with suspicious symptoms or whose throat tests were positive for streptococci were sent home with a note urging proper treatment. A follow-up phone call was made to the mothers of these children.

"Rheumatic fever did not develop in any of the children in the group studied," the physicians said. Although the program has not actually proved how much rheumatic fever may have been prevented, they said they are "convinced that the prevention of first attacks of rheumatic fever is at least partly a community problem . . . It is hoped that the experience here with this program, despite some obvious imperfections, will aid and be a stimulus to others interested in community control of rheumatic fever."

DOCTORS IDENTIFY "COLD-LIKE" RESPIRATORY DISEASE

A summer-camp epidemic has led doctors to recognize a specific disease among the mass of illnesses known as "common cold" or "respiratory disease."

Five Bethesda, Md., physicians described what they called "pharyngoconjunctival fever" in the March 26 Journal of the American Medical Association. They said they identified the disease as a specific type after observing 300 cases in a summer day camp, two residential neighborhoods, and scattered throughout the area.

A newly discovered virus, adenoidal-pharyngeal-conjunctival (APC), type 3, was found in 80 patients, and antibodies against the virus were found in practically every patient tested. This virus apparently is the cause of the illness.

Cases were easily traced from one patient to prior contact with other persons having the illness, the physicians said. Healthy carriers were certainly not so common in

this case as they are in such diseases as polio and diphtheria.

Chief signs of the disease were fever, conjunctivitis, or sore throat. Headaches, listlessness, and drowsiness toward the end of the fever period were common symptoms. There were few patients with cough, skin rashes, or muscle, bone, or joint aches such as are found in influenza.

The disease seemed to be highly infectious, since about 60 to 70 per cent of all children through nine years old who were exposed to it were attacked. The attack rate was lower at both extremes of age range. This might be accounted for partly by fewer opportunities for exposure among children at home, and more immunity among older persons.

While person-to-person contact seemed to be largely responsible for widespread outbreaks in the camp and the neighborhoods, swimming pools also may have been a factor. Conjunctivitis appeared more often among swimming pool users, and the youngest persons at the day camp, who did not use the pool, had lower rates of infection.

In one neighborhood, the incidence reached a peak soon after a new swimming pool was opened. The physicians said they thought the household was the most important place of spread, car pools next, and camp groups last, with the swimming pool a possible but indefinite factor.

They said the illness probably is a common, widespread respiratory disease. Although they made no studies on prevention and treatment, it appeared that various antibiotics used made little difference in the course of the disease. All of the patients recovered.

The report was made by Drs. Joseph A. Bell, Wallace P. Rowe, Joseph I. Engler, Robert H. Parrott, and Robert J. Huebner, from the U. S. Public Health Service, National Institutes of Health.

A. M. A. PRESIDENT SUGGESTS CHANGE IN DEPENDENT MEDICAL CARE

The president of the American Medical Association said that government help in providing medical care for servicemen's dependents should take into consideration the conservation of our "total medical resources."

Dr. Walter B. Martin, Norfolk, Va., stated in the March 26 Journal of the A. M. A. that it is obvious the short-term serviceman may have difficulty in providing medical care for his family. Career personnel naturally look to the government for assistance, but the present system for short-term servicemen's dependents is "haphazard and unfair."

In attempting to improve the situation, the government should try to utilize both military and civilian medical resources, he said.

"To rob the one and overexpand the other is a harmful policy," Dr. Martin said. "If major hostilities should develop, a greatly expanded medical service for the armed forces will be required. They can effectively augment their strength only from a virile and effective civilian medical population.

"The present system of providing care for dependents is haphazard and unfair, since the availability of such care is now on the basis of chance proximity to a service institution. In other areas, remote from such hospitals, the bulk of the work must be done by civilian medical personnel and in civilian hospitals. Where both types of facilities exist freedom of choice by the dependent as to where medical care is sought would depend on local conditions and other factors.

"The government hospitals in the continental United States are at present in competition with civilian hospitals in many areas. The federal government, in conjunction with states and localities, is spending millions of dollars under the Hospital Survey and Construction Act in civilian hospital construction, and yet, at the same time, this government is making it more difficult for some of these civilian hospitals to operate at a more reasonable cost.

"Much of the patient load that would normally flow into these hospitals is diverted from community enterprises into government-supported hospitals. This does not make sense from the standpoint of producing good medical care for the American people as a whole.

"It has resulted in the wasteful duplication of hospital facilities, unwarranted dispersion of needed personnel, and an increased cost of hospital care for those who pay their way."

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PATHOLOGIC LESIONS IN CHRONIC CASES OF CEREBRAL ARTERIOSCLEROSIS

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In 1952, 170,000 people died in the United States of cerebral vascular accidents, or "strokes."¹ This is over three times the number who died of diabetes and tuberculosis combined in the same year.

It is estimated that there are 1,800,000 victims of cerebral vascular disease in the United States today. When it is realized that a large but unknown percentage of these require from one to four people to care for them, the impact on the community and family life becomes more apparent.

Chronic brain syndromes associated with cerebral arteriosclerosis are the second leading cause of first admissions to mental hospitals, schizophrenia being the leading disorder.

The statistics² from England and Wales indicate that the number of deaths from vascular lesions of the nervous system is large and growing larger every year. According to the Registrar-General's figures in 1942, the number was 56,048, and in 1952 it was 69,388 or approximately 14% of the

total deaths. The same is true in the United States.

Clinical summaries, pathologic findings, and photographs of the brain are presented to illustrate the many varied lesions of the brain which do occur in this disease. There is the tendency to classify the majority of death cases, especially if the death is sudden, that are known to be suffering from cerebral arteriosclerosis as cases of cerebral hemorrhage. The diagnosis of cerebral hemorrhage carries the implication of extensive hemorrhage involving the internal capsule and/or large areas of the brain, often with rupture into the ventricular system. This diagnosis, from our experience, is not usually confirmed at autopsy. Instead, a variety of pathologic lesions are found. To be sure, the number of cases is not large enough to draw sweeping conclusions but the cases do call attention to the fact that cerebral vascular accidents are infrequently the result of massive hemorrhage.

Patients suffering from cerebral arteriosclerosis have complex clinical manifestations with varying degrees of motor involvement, sensory changes, and mental disturbances, making accurate clinical diagnoses of the pathologic lesions of the brain a difficult process. Frequently the patient must be followed for weeks or months with repeated examinations before final diagnosis is made. Examinations should be thorough, including general medical and neurologic surveys plus laboratory studies

1. Wright, I. S., and McDevitt, Ellen: Cerebral Vascular Diseases, *Lancet*, No. XVII of Vol. II, 1954; No. 6843 of Vol. CCXVII.

2. Brain, Russell: Cerebral Vascular Disorders, *Lancet*, No. XVII of Vol. II, 1954; No. 6843 of Vol. CCXVII.

Blackwood, Wm.; Dodds, T. C.; Somerville, J. C., and Drennan, A. M.: *Atlas of Neuropathology*. Williams and Wilkins Company, Baltimore.

Hicks, S. P., and Warren, Shields: *Introduction to Neuropathology*. McGraw-Hill Book Co., Inc.

with spinal fluid examinations. X-rays of the skull may be needed. Some special examinations, as ventriculograms, angiograms and encephalograms may be indicated before diagnoses are made. Complete autopsies should be performed upon patients dying from this disease to clarify the actual vascular lesions, rather than the assumption that death was caused by massive cerebral hemorrhage.

With longevity as a common fact, the physician may anticipate seeing many patients in the early and late stages of arteriosclerosis in general practice and elsewhere. An understanding of the underlying pathology in cerebral arteriosclerosis involvement is requisite for diagnosis and treatment.

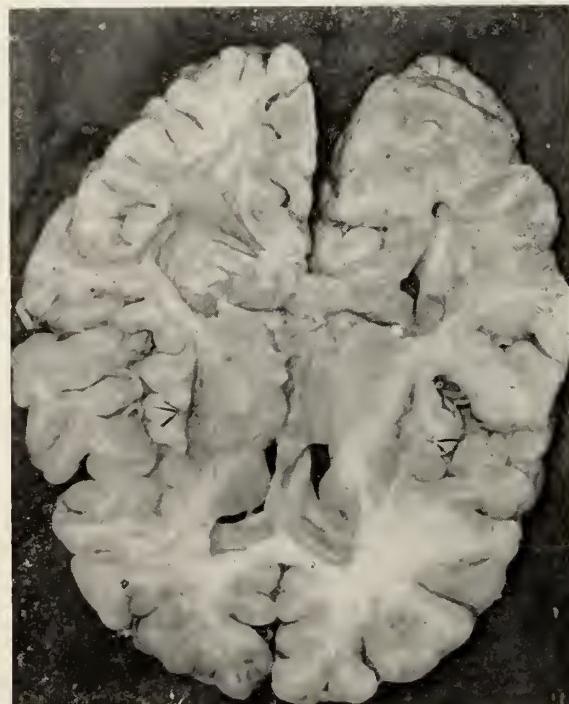
The cases submitted in this study demonstrate wide diversities in clinical and pathologic findings.

Case No. 1. A 47 year old, white male veteran was admitted to the Veterans Administration Hospital, Gulfport, Mississippi, for the second time August 25, 1951. His condition was diagnosed as a right hemiplegia. Clinically, he made good improvement. The history was that in the early part of 1950 he had a "stroke" involving the right side, accompanied by aphasia. He had been admitted to a Veterans Administration general medical and surgical hospital in August 1950 and treated for a moderate right-sided hemiplegia. He had shown no very pronounced mental symptoms, and paralysis of the right side abated. He was discharged August 24, 1950, with diagnosis of hypertensive encephalopathy. At home his mental condition became worse and his wife stated that he became "insanely jealous," cursed and raved all the time, and struck her on several occasions. He was brought to this hospital early in 1951 and considered to be a chronic hospital case. However, his wife insisted on taking him home. Sometime between March and August 1951 he developed hemiplegia involving his left side, became unconscious, and was readmitted to the Veterans Administration Hospital where he had first received treatment. He was critically ill for several weeks, slowly recovered from the left hemiplegia but there was a residual partial paralysis of the right upper and lower extremities. He was again transferred to this hospital and diagnosed as having cerebral arteriosclerosis with psychosis, deteriorated type. The patient continued a slowly but

progressively deteriorative course both mentally and physically after his admission in August 1951. He had bouts of elevation of temperature with no apparent cause other than possibly cerebral changes due to arteriosclerosis. On September 9, 1954, x-rays demonstrated pulmonary pathology, interpreted as consolidation and possibly abscess in the right lung. He grew rapidly worse and expired on September 9, 1954.

Laboratory findings were essentially negative. Chief physical finding during the last year of illness was a residual right hemiplegia. Mentally, he was grossly disoriented, had completely defective judgment, he could not comprehend remarks made to a group and those directed to himself, he could not carry out instructions, his performance of fine movements was poor, and his power to perceive ideas was grossly impaired.

Neurologic examination showed pupillary reflexes equal but sluggish. Facial asymmetry was present, with a slight drooping of the right side of the face. No definite deviation or atrophy of the tongue was found. Tendon reflexes were active, 4 plus on the right and 3 plus on the left, with a positive Hoffman bilaterally, but more prominent on the right. Achilles reflexes



Case No. 1. Horizontal section of the brain through the internal capsule and the corpus striatum, showing linear scarring and degeneration in the right and left lenticular nuclei.

were equal bilaterally; no clonus. Positive Babinski on the right. The right Rossolimo sign was elicited. There were athetoid movements of the toes on the right. Examination of sensation was not reliable. However, the lower extremities seemed more sensitive with little essential difference in the two sides. His gait was that of a typical hemiplegic.

Autopsy revealed a very unusual type of brain lesion. There was a thin brownish-yellow linear scar in the right and left lenticular nuclei extending into the internal capsule. This lesion was most probably due to an old infarction. The blood vessels of the brain showed numerous atheromatous plaques.

Case No. 2. A 65 year old, white Spanish-American War and World War I veteran was first admitted to a Veterans Administration hospital in 1944 and diagnosed as cerebral thrombosis. He remained in the domiciliary section for several years but was admitted to the hospital section on various occasions from 1945 to 1953. When admitted in January 1953, he was confused, very emotionally unstable, and aphasic. Blood pressure was 200/100 and it was thought he had suffered another cerebral vascular accident or recurrent cerebral thrombosis. The left leg was spastic in extension and he moved this extremity very lit-

tle. The left arm was slightly spastic but had good motor functions. All reflexes were hyperactive, especially the left. His speech was slurred and his answers to questions were not logical nor sensible. His tongue deviated to the left. Abdominal reflexes were absent. Routine laboratory work, spinal fluid and x-ray examinations were essentially negative. The patient was entirely out of contact with reality. He developed pneumonia in September 1954, failed to respond to treatment, and died.

The frontal section of the brain through the mammillary bodies showed a large cystic degenerative area involving most of the hemisphere. This cystic area involved the parietal, temporal and occipital lobes, extended from the lenticular nucleus to the cortex of the brain. All blood vessels showed marked arteriosclerotic changes.

Case No. 3. A white male barber was admitted to a Veterans Administration hospital on February 3, 1951, at the age of 62. His diagnosis was partial right-sided hemiplegia, secondary to cerebral vascular accident. He stated that he had had high blood pressure since August 1950. Medical history revealed that at the onset of the hemiplegia there was confusion, disorientation and partial loss of speech, and incontinence of feces and urine. His pulse was 80, blood pressure 160/110. Physical findings were hernia, flaccid paralysis of the right side, with a slight disturbance of speech and inability to express fluently what he wished to say. Laboratory tests were essentially negative. X-rays showed some pulmonary edema, heart shadow slightly enlarged, and a slight pulmonary congestion of both lower lobes. He was given regular hospital care, including bed rest with exercise and massage to the paralyzed parts. He steadily improved, was cooperative, offered no complaints, and became ambulant with the aid of a cane. He was able to take care of his bathroom needs, his speech continued to improve, and he was clearer mentally. On June 18, 1952 he became disgruntled, and at his own request was discharged. Within a short time his daughter called inquiring why he had been permitted to leave, stating that he was not able physically to get along on the outside, that he was found roaming the streets, and had no one to look after him. She requested that he be sent to a neuropsychiatric hospital. He was readmitted to the Veterans



Case No. 2. Frontal section of human brain through the mammillary bodies shows large cystic degeneration involving most of the hemisphere.

Administration Hospital of first confinement and subsequently transferred to the Veterans Administration Hospital, Gulfport, Mississippi, where he remained until his death. Upon admission, the patient showed some confusion, at times was depressed, other times euphoric.

Routine laboratory work and special procedures such as spinal surveys were all within normal limits. Physical examination showed residuals of a right-sided paralysis with flaccidity of the right extremities, decreased strength of right arm and right leg, impairment of handwriting and other skilled acts, increased sensitivity to pin pricks on right leg and arm, sluggish pupils, sclerotic changes in the vessels of the fundi, and protrusion of the tongue tip to the right. Mentally, he continued to be rambling and circumstantial in his talk. He claimed a young barber was added to the shop where he was employed and this man struck him on the head with a blackjack, thereby causing his present condition. He admitted to having had auditory hallucinations, hearing the "Lord talking to him," and hearing voices of people not present. Continued hospitalization was deemed necessary.

He made a satisfactory adjustment at the



Case No. 3. Horizontal section of the brain through the internal capsule showing areas of softening in the frontal and parietal lobes.

hospital but his mental condition and paralysis of the right side of the body remained essentially the same. He died April 24, 1953 at the age of 65 of pulmonary congestion and suppurative bronchopneumonia.

At autopsy the brain showed some evidence of edema but grossly was within normal limits and symmetrical. On the horizontal section of the brain through the internal capsule, multiple areas of softening in the frontal and parietal lobes were noted. These areas were irregular in outline, whitish-yellow, varying in size, were well demarcated from the normal brain tissue, somewhat retracted and soft, and were most likely due to the occlusion of small arteries resulting from arteriosclerosis. The blood vessels of the brain showed numerous atheromatous plaques.

Case No. 4. This white male, World War I veteran became ill in 1949 at the age of 57 and was admitted to a Veterans Administration general medical and surgical hospital. Shortly after his arrival he was found to be childish, irresponsible, forgetful, and rapidly becoming more helpless. Records from the Veterans Administration Hospital where he had been previously treated disclosed that, before his admission there, he had gotten along less and less well with his own people due to his progressive childishness and irritability. An extensive examination was made there and while it was recognized that he was senile far beyond his years and very arteriosclerotic, it was felt that no psychosis existed as late as December 1949. He failed to adjust in the second hospital and was transferred to the Veterans Administration Hospital, Gulfport, Mississippi, in September 1949.

His chief complaints were shortness of breath upon exertion, claudication, visual hallucinations, and forgetfulness. He was very feeble and could walk only a few steps with support. He stated that he had lost consciousness for about an hour in September 1949, but there was no observance of a recurrence of syncopal attacks or convulsions during his last hospitalization.

Physical examination on April 24, 1950 revealed a well-developed, poorly nourished, partially ambulatory white male in no acute distress. Examination of the fundi showed moderately increased tortuosity with "silver wiring" effect and arteriosclerosis of the arterioles. His blood pressure was 162/110; heart sounds were dis-

tant with no evidence of murmurs. Laboratory tests were essentially negative except for 60 mg. of protein in the spinal fluid. Blood Kahn test was negative. The patient had visual hallucinations and was confused. Examination showed that he was suffering from cerebral arteriosclerosis with progressive mental deterioration. The pupils were round and equal and reacted normally to light. Facial musculature was symmetrical. A rapid, fine tremor of the extended hand existed. Biceps and triceps reflexes were two plus. Abdominal reflexes were present. Patellar and Achilles reflexes were three plus. Finger-to-nose test was performed without ataxia or past pointing.

Mental examination revealed him as childish and irresponsible with judgment and rationalization greatly impaired and thought processes incomplete. He spoke only in a whisper, was very frail and childlike in his demeanor, and only partially oriented. His memory, both recent and remote, was fragmentary.

The patient gradually deteriorated and

grew weaker and feebler until his death in January 1954 at the age of 62. At no time did he demonstrate any gross evidence of any type of muscular paralysis or sensory changes. The terminal cause of death was kidney failure and uremia.

The brain at autopsy was markedly edematous, with a large quantity of fluid beneath the dura. The horizontal section showed a large cystic degenerative area involving most of the left occipital lobe and a portion of the parietal lobe. There was dilatation of the lateral ventricle, forming a cyst-like cavity extending from the ventricle to the cortex, lined with brownish-yellow, delicate, fibrous-like tissue.

Case No. 5. A well-nourished, well-developed, white male, age 35, was admitted to the Veterans Administration Hospital, Gulfport, Mississippi, in July 1932. He was in military service for a two-year period, part of which was spent overseas. He was hospitalized for a month with pneumonia, later was gassed, and spent a month in the hospital. Since that time he had suffered from asthma.

He was agreeable, cooperative, and correctly oriented in all spheres, but slow in recalling dates and events and there was some deterioration in the intellectual field. He appeared somewhat euphoric but denied hallucinations and delusions and none were elicited. His judgment was poor and he possessed no insight into his condition.

Neurologic examination showed pupils unequal in size, the right larger than the left and irregular in outline, both fixed to light. There were tremors of the closed eyelids, protruded tongue, and facial muscles. There was easily-exhausted ankle clonus on the right and a positive Babinski on the right. He swayed slightly in Romberg position. There was complete absence of social and industrial adaptability, and he was totally disabled.

Spinal fluid examination showed positive globulin and Wassermann tests, and the colloidal gold curve was 5544330000. His blood Wassermann was also positive. X-rays of the chest showed lung markings unusually heavy, with an increase in both hilus, plus a small area of infiltration in the angle formed by the vertebral branch and the mediastinal border, suggesting early tuberculosis, hilar type.

The patient was a typical paretic and



Case No. 4. Horizontal section of the brain through the internal capsule showing large encapsulated cystic degenerated area of the left cerebral hemisphere with dilatation of the lateral ventricle.

slowly deteriorated during the years 1932 to 1953. On July 1, 1953 he had a grand mal seizure, followed by some twitching of the right side of the face and some extension spasm and rigidity of the extremities. Several hours later he became comatose, with twitching again on the right side of the face. Neurologic examination at that date showed pupils unequal but fixed to light, the right one larger than the left, with a positive Hoffman, ankle clonus and Babinski bilaterally. He could not be aroused and responded only slightly to painful stimuli. Coma persisted, with death on July 8, 1953 at the age of 57. The spinal fluid taken at the time of convulsions showed increased globulin, total protein 79, 4 cells present, VDRL negative, gold curve negative, and a white count of 23,800, with 93% neutrophils and 7% lymphocytes. Urine was negative; serology negative.

Examination of the brain at autopsy revealed marked arteriosclerosis of all the vessels. There were multiple areas of hemorrhagic softening in the right frontal, parietal and occipital lobes and in the left

ably due to the sudden occlusion of the blood vessels.

Case No. 6. A 54-year old white, World War I veteran, former school teacher and businessman was admitted to a Veterans Administration general medical and surgical hospital in 1939, complaining of periodic attacks of diarrhea, followed by severe constipation. Admission diagnosis was amebic dysentery and hypertension, but studies did not confirm this. He was discharged in the latter part of 1939, readmitted in June of 1945, treated and discharged on July 10, 1945, with final diagnosis as anemia, secondary, cause undetermined, and diarrhea, cause undetermined. He was later hospitalized from May 1946 to June 1946 with a diagnosis of diarrhea, cause undetermined. He complained intermittently of pain in the abdomen but the exact nature or location of the pain was undetermined. He entered another Veterans Administration hospital, with diagnosis as psychosis with cerebral arteriosclerosis, and was transferred to the Veterans Administration Hospital, Gulfport, Mississippi, on April 9, 1948.

He presented a picture of moderate mental confusion, was poorly oriented, spoke irrelevantly, his memory was markedly impaired, his speech was very slow and lacking in quality, and he appeared anxious and confused with no understanding of his problems.

Personal history of the patient as given by his brother shed some light on his illness. The history was that he finished high school, was active in extra-curricular activities, and had many friends. He later attended college two years. Very little was learned of his military service. After being discharged, he taught school for several years, then went into business in a general store, was quite successful for a time, but went into bankruptcy during the depression in 1932, at which time he showed marked decline educationally, socially and economically. He later farmed unsuccessfully, then opened a small feed and seed store with the help of his wife. His brother stated that the patient was a member of various organizations and served as Post Commander of the American Legion for several years. There was no history of alcoholism.

Complete neurologic examination in September 1948 was essentially negative. Physical examination was negative, except for evidence of generalized arteriosclerosis.



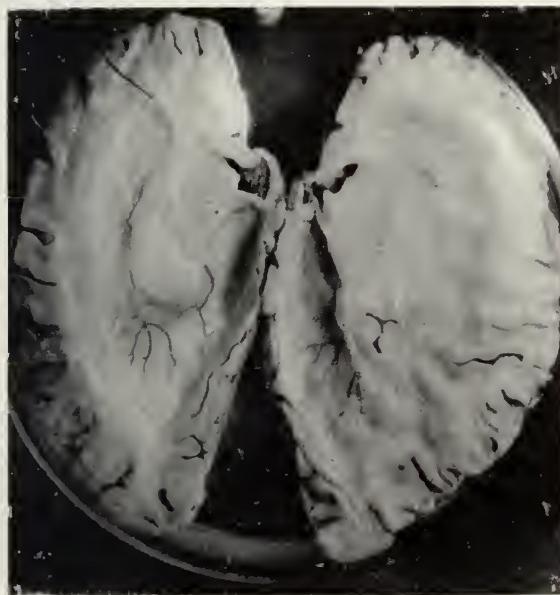
Case No. 5. Various sections taken through the parietal and frontal lobes of the brain showing cortical infarcts. These areas are soft and hemorrhagic.

parietal lobe. These areas varied in diameter from .75 cm. to 1.25 cm., were well demarcated from the normal brain tissue, and did not have the appearance of hemorrhages but rather of acute infarctions. These areas of softening in the brain were most prob-

Laboratory examinations were all negative. Blood count was within normal limits. VDRL and Kolmer tests were negative.

The patient continued to be out of contact with reality, and deteriorated gradually during the period from 1948 to August 1954 when he died at the age of 60. The cause of death was clinically determined to be bronchopneumonia, with abscess formation of the right lung and degenerative brain lesions due to arteriosclerosis.

At autopsy the brain was somewhat edematous and there were marked indentations in both temporal lobes. On palpation the indented areas felt like cysts with very thin walls. On the mid-saggital sections



Case No. 6. Mid-saggital sections through the right and left temporal lobes of the brain showing marked dilatation of the inferior horn of the lateral ventricles. There is marked thinning of the cortex with cyst-like formation.

through the right and left temporal lobes of the brain there was marked dilatation of the inferior horn of the lateral ventricles forming cyst-like structures. There was dilatation of all ventricles, with marked thinning of the cortex. There was no isolated area of softening or hemorrhage. The brain, as a whole, appeared to be involved with generalized atrophy of the cerebral cortex.

SUMMARY

The pathologic process in arteriosclerosis and atherosclerosis of the central nervous system is similar to that seen in other parts of the body. In the cases here presented

there were noted arteriosclerotic changes in the cerebral vessels, not only those at the base of the brain but in the smaller arteries and the perforating arteries. One must bear in mind that arteriosclerosis can be associated with other disease processes which may hasten the degenerative changes, such as syphilis, diabetes and hypertension. Several of the cited cases had associated diseases. There is no area of the brain that is specifically selected by this disease. Lesions may be small, large, single or multiple, and may be located from the frontal area to the medulla.

It will be observed that the primary clinical changes in these patients varies greatly as to the age of onset and the duration of the illness and that their clinical symptoms are often difficult to interpret. Some have paralysis and others neurologic signs and mental deterioration; still others have mental deterioration without any specific neurologic findings, so one may anticipate a wide variety of clinical and mental manifestations in this disease.

If the lesion is of sudden occurrence, it is indicative of the occlusion of a blood vessel with infarction. The infarcted areas will be red, hemorrhagic, soft, and well demarcated from the normal brain tissue. Microscopically, one will find in the infarcted areas dilated capillaries, red blood cells in the stroma, and early degenerative changes in the nerve fibers. If the brain lesion is of recent occurrence, one will find many phagocytes (gitter cells) in and around the degenerative area. These cells are oval, large with a granular cytoplasm, and frequently contain hemosiderin and lipid-like material. The nerve fibers will show degeneration of the myelin and axis cylinders. The ganglion cells in the area will also show degenerative changes. If the lesion is of long duration there will be gliosis, and in these areas there will be an increase in the fibrillary astrocytes and degeneration of the nerve fibers. There may also be degenerative cyst formations lined by glial tissue.

These few cases may not be of particular interest to the neuropathologist who frequently sees similar cases at autopsy; however, they may be of interest to the busy general practitioner who does not have the opportunity to view them at autopsy; or, if autopsy is done, the central nervous system is not examined.

CARCINOMA OF THE THORACIC ESOPHAGUS

HOWARD S. J. WALKER, JR., M. D.

Mobile, Alabama

Carcinoma of the esophagus is a common disease of elderly people which has usually reached such an advanced state by the time the diagnosis is made that the prognosis is poor. Untreated, it progresses to death from one or more of the following complications: obstruction with starvation, mediastinitis, empyema, pneumonitis, atelectasis, lung abscess, or widespread metastases.

Microscopic Anatomy

Carcinomas of the upper 3/4's of the esophagus are epidermoid in type. Carcinomas of the lower 1/4 may be epidermoid or adeno. The adenocarcinomas either originate in the glands of the lower esophagus or arise in the stomach near the esophagus and extend upward to invade it. The primary lesion is polypoid or invasive. The polypoid tumors cause obstruction relatively early, but the invasive ones usually spread widely before producing any symptoms. The cure rate of the polypoid lesions is therefore better.

Spread

Any of these tumors may spread by direct extension, lymphatics or blood vessels. The trachea or bronchi frequently are invaded directly. Mucosal and submucosal lymphatic extension of the cancer is common. Long segments of the esophagus above and below the tumor may be thus involved. Tumors arising in the cervical esophagus usually metastasize to the cervical lymph nodes; those in the upper and mid-esophagus to the mediastinal lymph nodes; and those in the lower esophagus to the mediastinal or abdominal lymph nodes. However, the rich lymphatic circulation results in variable metastases, so that any group of nodes may be affected initially by tumors originating in any region.

Blood vessel invasion by the primary tumor or from secondary lymphatic deposits may eventuate in hemorrhage or widespread metastases. The liver is commonly affected by these blood-borne metastases. Willis reported a direct invasion of the aorta, with perforation and exsanguinating hemorrhage as the presenting symptom.

Symptoms

There are no definite early symptoms of carcinoma of the esophagus. Dysphagia is

the most frequent complaint, but is indicative of an already far advanced tumor. Heartburn, epigastric discomfort, vague pain in the chest or back, belching, intolerance to certain hard or strongly seasoned foods, or intermittent difficulty swallowing may precede any constant dysphagia, but the diagnosis is rarely made before the latter develops. Pulmonary symptoms are due to tracheobronchial invasion by an extensive lesion, or to regurgitation of food with aspiration.

Diagnosis

Once the diagnosis is suspected, a barium swallow will usually show the lesion. The x-ray diagnosis of advanced tumors is very accurate, but may be impossible in the case of early lesions or of tumors which stimulate or are associated with achalasia or benign strictures. When there is any question, esophagoscopy is indicated. Adequate biopsies can usually be taken endoscopically, and will sometimes solve a perplexing problem. If there is any likelihood that the tracheobronchial tree is invaded, bronchoscopy may be helpful. Biopsy of lymph nodes or other metastases is sometimes diagnostic. The measures to be used in the individual case depend on the findings as well as the preference of the surgeon, but a definite diagnosis can usually be established once the disease is suspected. Exploratory thoracotomy is rarely resorted to as a diagnostic procedure in this disease.

Treatment

The adenocarcinomas are radioresistant, but the epidermoid cancers are moderately radiosensitive. Because of this, many forms of irradiation have been tried. Interstitial curietherapy has been introduced endoscopically or transthoracically with poor results and numerous complications. Roentgen rays have been used more satisfactorily. These have been administered through different ports, and by rotation techniques. Some tumors have been controlled by irradiation and the ones in the cervical esophagus seem to be the most favorable for this type of treatment.

The overall results of irradiation have been so unpromising that more patients are being treated surgically. Gastrostomy is

usually of no benefit, and should rarely be done. In recent years suitable techniques have evolved for the surgical removal of all parts of the esophagus. These operations carry little mortality and morbidity, yet benefit many people. Most patients obtain moderate to marked relief of symptoms, and some are permanently cured.

For purposes of surgical treatment the esophagus may be divided into three areas: the cervical esophagus, the upper 3/4's of the thoracic esophagus, and the lower 1/4 of the thoracic esophagus.

The cervical esophagus is usually extirpated through a neck incision. Involved lymph nodes and associated structures may be removed with the esophagus and continuity reestablished by some plastic procedure. The Wookey operation is the prototype of the more successful techniques.

The lower esophagus and the esophago-gastric junction can be readily removed through a left lower thoracic or thoraco-abdominal incision. Phemister, Adams and Garlock did much to develop this technique. Some men advocate this approach for all areas of the thoracic esophagus, but it has definite disadvantages for lesions near or above the arch of the aorta. High anastomoses are difficult, and dissection of tumors behind the arch is done with very poor exposure and considerable danger. The use of one abdominal and a separate upper right anterior thoracic incision, as advocated by Ivor Lewis, seems to be ideal for the excision of high esophageal lesions. Occasionally a separate cervical incision will further aid the procedure.

Surgical Technique

The technique as used by the author in the case reports is as follows. The patient is positioned supine or slightly rotated to the left. The abdomen is opened through an upper midline incision, and the stomach carefully mobilized throughout its length with the marginal vessels intact. The duodenum is freed by cutting the right peritoneal fold. The chest is then opened through the anterior right fourth interspace. Further exposure is obtained by cutting costal cartilages above or below as required. The esophagus is mobilized from above the lesion down into the abdomen. A large part of this dissection can be done under direct vision, particularly in the areas most likely to involve the great vessels.

With the abdominal incision open, the stomach is then passed into the chest through the esophageal hiatus. This can usually be dilated slightly to facilitate the passage, but it may be necessary to cut one of the crura of the diaphragm if the hiatus is too small.

The original esophago-gastric junction is then closed and an anastomosis done between the esophagus and the most convenient point on the stomach. If the cut end of the esophagus is very high, another incision may be made in the neck and the anastomosis done there. When the stomach is properly mobilized, it will reach up to the pharynx. Once the anastomosis is completed, the thoracic and abdominal incisions are closed. Underwater pleural drainage is provided for a few days.

Elderly patients will tolerate a procedure of this magnitude very well. Since the operation is done while they are supine, there is less strain than in the lateral position. The use of two separate incisions allows reconstruction of a chest wall which is very stable. The diaphragm is left intact, and this potentiates abdominal respiration. So far there has been no case of pyloric obstruction, so the pyloromyotomy has not been employed.

CASE REPORTS

The following three cases of epidermoid carcinoma involving the middle thoracic esophagus are presented.

Case 1 (Figs. 1 and 2)

The patient was a 69 year old Negro female who had experienced gradually increasing difficulty swallowing over a period of approximately one year. A barium swallow revealed an extensive lesion involving the midthoracic esophagus. Physical examination was otherwise normal.

Operation: 6 June, 1953. The abdomen was opened, and the stomach mobilized. The chest was then opened, and the esophagus found to be involved in a huge epidermoid carcinoma which invaded the aorta. However, the entire thoracic esophagus was removed, the stomach brought through the chest, and anastomosed to the esophagus in the neck through a separate low cervical incision. The portion of the tumor which



Case No. 1. This shows the abdominal, thoracic, and cervical incisions.



Case No. 1. This shows the stomach in the chest outlined by barium.

invaded the wall of the aorta was not removed.

Follow Up: The patient was immediately improved. She left the hospital in two weeks, gained weight and strength, and did all of her own housework for nine months. She then started to fail, and died of generalized metastases $10\frac{1}{2}$ months following surgery. This was considered to be worthwhile palliation.

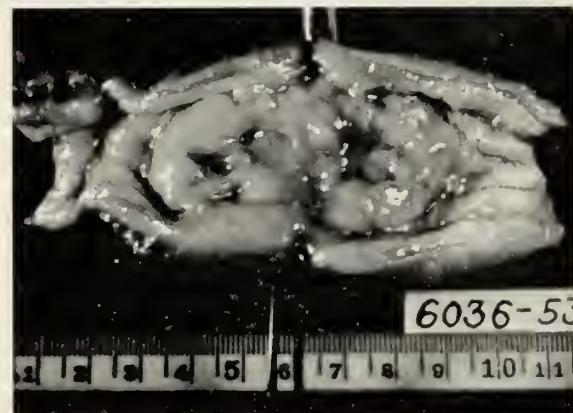
Case 2 (Fig. 3)

The patient is a 61 year old white female who had progressive difficulty swallowing for a period of six months. A barium swal-

low revealed a lesion of the midthoracic esophagus. The physical examination was otherwise normal.

Operation: 17 September, 1953. The stomach was freed through an abdominal incision, the chest was then opened, and a large tumor which seemed to be confined to the esophagus was found. Most of the thoracic esophagus was removed, and the stomach anastomosed to the remaining gullet at the apex of the chest.

Follow Up: The patient went home twelve days later and has done well for the



Case No. 2. This is the entire thoracic esophagus obstructed by a large polypoid tumor.

16 months since surgery. She does most of her own housework, maintains her weight, and has no complaints. The tumor was a polypoid epidermoid carcinoma without evidence of distant spread (Fig. 3). The muscularis of the esophagus was invaded, but it is hoped that she may be cured.

Case 3 (Fig. 4)

The patient is a 68 year old white male who noted moderate dysphagia for a few



Case No. 3. Only abdominal and thoracic incisions are shown.

months. A barium swallow showed a lesion of the midthoracic esophagus. Esophagoscopy revealed a definite epidermoid carcinoma of the esophagus. His general condition was not too good, but it was felt that resection was indicated.

Operation: 20 September, 1954. The stomach was freed through the abdominal incision, and the chest then entered. A large infiltrating tumor of the mid-esophagus was found. The esophagus was removed, and the stomach anastomosed to the remaining segment at the top of the chest. Although the entire tumor seemed to be removed, the prognosis was considered poor because the microscopic picture showed infiltrating epidermoid cancer.

Follow Up: The patient had a smooth postoperative course and left the hospital 20 days following surgery. His general condition seemed to improve for three months, but he is going downhill at present, and it is doubtful whether he will get much relief from the operation.

DISCUSSION

While it is true that carcinoma of the upper 3/4's of the thoracic esophagus is a very grave disease, there is much that can be done to alleviate the suffering of its victims. At the present time the most helpful procedure is the surgical removal of the primary tumor, with reconstruction of the alimentary canal by an esophagogastrostomy. The operation may be done safely in one stage, utilizing separate abdominal, thoracic and cervical incisions. If necessary, the stomach may be brought as high as the pharynx for the anastomosis. When a patient is not in good enough condition to survive removal of the tumor, it is very doubtful whether gastrostomy or irradiation is worth while.

SUMMARY

Case histories of three patients with advanced epidermoid cancers of the middle and upper thoracic esophagus are presented. Their ages were 69, 61 and 68 years at the time of resection. Two obtained marked benefit, and one has been moderately helped. While the long range cure rate must necessarily be low in people of this age, the outlook is not always hopeless. Earlier diagnosis and resection should be of real value.

Van Antwerp Building.

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Allergy in General Practice—A well trained general practitioner must have a good working knowledge of allergy. Diagnosis is all-important. Patients who come in with an allergic background should have thorough histories. Since approximately 80 per cent of the population have a minor allergy and 10 per cent a major allergy, it is very important to get this information in the patient's history. Even though his allergy may vary from that of his father or mother, it is always important to know what their allergies are, whether or not they are severe, how frequently they occur, and what treatment seems to relieve them. In taking a history, it is important to find out when the patient's allergy appeared, estimate its severity, frequency of recurrence, and the type of manifestation the present allergy takes. For example, it is very important to know whether the patient is an asthmatic or has hay fever; whether he is in anaphylactic shock; or whether he has angioneurotic edema or nettle rash. Contact dermatitis, eczema and other manifestations should be clearly defined in the general practitioner's mind. We must, by all means, be able to differentiate between an allergy and other diseases of a similar nature. Frequently, this is not easy. It can be done only after a thorough history is taken, a complete physical examination of the patient has been accomplished, and other pertinent information obtained. Here again, the family history and the patient's background are important.—*Sanders, J. Louisiana State M. Soc.*, April '55.

ARACHNODACTYLY
A CASE REPORT

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The attention of orthopedists, pediatricians, and physicians in general should be directed to arachnodactyly, or Marfan's

TABLE I^{1,2}
SYSTEM IC

Classification of Clinical Manifestations

1. Bone and Joint
 - A. Abnormally long, gracile fingers and toes.
 - B. Secondary contractures of the fingers and toes.
 - C. Webbing of the fingers and toes.
 - D. Clubfoot and flat foot.
 - E. Relaxation of the periarticular ligaments.
 - F. Dislocating patellae.
 - G. Long prominent jaw.
 - H. Prominence of preorbital ridges.
 - I. Long headedness or dolichocephalia.
 - J. Kyphosis and scoliosis.
 - K. Deformities of the sternum and asymmetry of the thorax.
 - L. Winged scapulae.
 - M. Spina bifida.
 - N. Hammer toe.
2. Muscular
 - A. The musculature is underdeveloped but there is no amyotonia.
3. Dermal
 - A. Decrease in amount of subcutaneous fat.
4. Cardiovascular and Pulmonary
 - A. Congenital abnormalities of the heart and great vessels.
 - B. Cardiac arrhythmias.
 - C. Associated rheumatic fever and bacterial endocarditis and pneumonia.
 - D. Irregularities in the lung lobes.
5. Hematopoietic
 - A. Secondary anemia.
6. Ocular
 - A. Ectopia lentis.
 - B. Chorioretinitis.
 - C. Lenticular myopia.
7. Oral
 - A. High palate.
 - B. Over-bite of the teeth.
8. Otic
 - A. Protrusion of the upper half of the auricle giving a very prominent ear.
9. Endocrine
 - A. Sexual infantilism.
 - B. Basal metabolic rate minus twenty five per cent to minus thirty per cent.

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syndrome. The entity was first described in 1896 by Marfan who called it pates d'araignee or dolichostenomelie.¹ Achard in 1902 gave it the name arachnodactyly.¹ The bulk of the cases have been from the German literature.² Lloyd has substantiated with case histories the familial trend of the condition. Apparently, the genetic basis is a Mendelian dominant.^{2,3} The tissue involved is all of mesodermal origin, except the suspensory ligament of the lens which is of ectodermal origin.¹ The symptoms and signs may be grouped under Table I.

The engaging and paramount characteristics of the patient are the elongated phalanges of the hands and feet. There are frequently contractures and laxity of ligaments which give the clinical picture of flat feet, club feet, flexion contractures of fingers, and dislocating patellae (as in the

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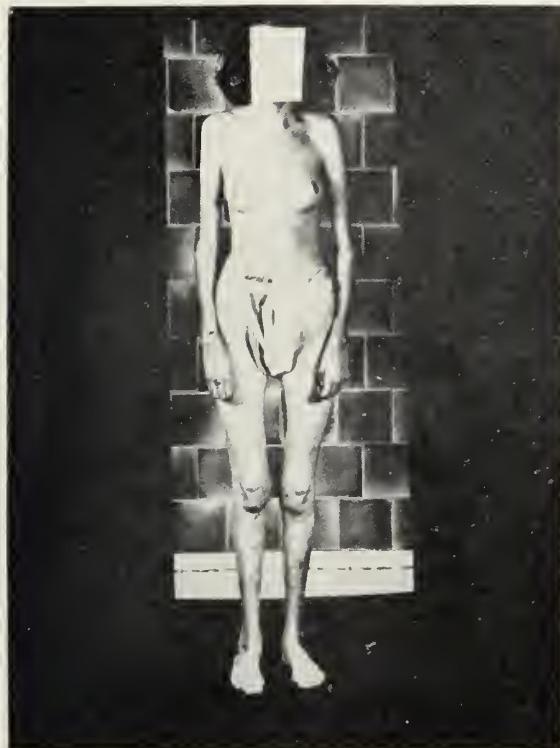


Fig. 1. A white female, somewhat retarded in full body development.



Fig. 2. Note long gracile phalanges and hammer toe.

case below). The bony deformities of the thorax and trunk, noted in Table I, account for the shortened, stoop shouldered, ky-



Fig. 3. Note flexion contractures of fingers.

photic appearance. Except for the secondary anemia, blood studies are essentially negative. The abnormalities of the heart and great vessels give a variety of murmurs. These are present in thirty to sixty per cent of the cases. The ocular defects are not necessary for diagnosis, being present in about fifty per cent of cases. There is the concomitant tendency to rheumatic fever and bacterial endocarditis, noted with all congenital heart and lung conditions.

CASE REPORT

A 17 year old white girl who complained of recurrent dislocating patellae was admitted on April 4, 1950. There had been repeated dislocations since the age of six years. The dislocations were always reduced by extending the knee to one hundred eighty degrees. The patient had been very thin since birth. She had always been poorly muscled, and small for her age. There was no family history of a similar condition. The patient was a pale, thin, white female appearing retarded in sexual development for her age. There was apparent "round back" in the thoracic region and her neck appeared somewhat shortened. Fingers and toes were the evident spider type, with flexion contractures. The ears were close to the head below and prominent above. The patient had mod-

erate genu valgum, and the patellae could be subluxated easily. The skin was dry and coarse and brawny, the pubic hair thin, the axillary hair absent. There was some loss of hair in the outer third of the eyebrow.

Roentgenograms showed some lumbar kyphosis and right convex lumbar scoliosis. X-ray of the skull showed some bulging of the sella turcica. X-rays of both knees showed moderate osteoporosis. She was seen by the consultant in ophthalmology who reported no dislocation of the lens, vision 20-15 bilateral. The consultant in cardiology felt there was no heart disease on physical examination.

Laboratory data:

I. Blood

- (a) Hemoglobin, 61%.
- (b) Kline, negative.
- (c) Non-protein nitrogen, 32 mg. %.
- (d) Urea nitrogen, 7.8 mg. %.
- (e) Creatinine, 1.2 mg. %.
- (f) Chloride, 590 mg. per cent (or 101 ME).
- (g) Sodium, 141.1 mg. per cent (MEQ-1).
- (h) Potassium, 4.2 (MEG-1).

II. Calcium

- (a) 11 mg. per cent.
- (b) BMR—minus twenty per cent.

III. Urine, total 17-keto-steroids .692 mg. 24 hrs.

Total estrogenic substance, 50 units/24 hrs.

On April 12, 1950 the dislocating patellae were corrected by a combined Robertson-Hauser procedure. Plaster immobilization was maintained for six weeks. Following active and passive physical therapy, she was ambulatory without support. The patellae had not dislocated 4 years later.

Incompletely Resolved Pneumonia—A large number of chronic pulmonary diseases may masquerade as an unresolved pneumonia, so an attempt to make an etiologic diagnosis is important. Occasionally poor resolution is due to underlying diseased pulmonary parenchyma as seen with emphysema or fibrosis. At other times, it is due to infection with an unusually virulent organism such as is seen with Friedlander's bacillus, a staphylococcus, or an occasional pneumococcus. Finally, it may be due to diseased or obstructed bronchi. Bronchial obstruction may be due to retained secretions, possibly a foreign body, and most significantly by tumor. By diseased bronchi we mean primarily bronchiectasis.—*Gordon, Journal Lancet, April '55.*

Third Trimester Bleeding—The potential seriousness of premature separation of the placenta makes its prompt diagnosis and immediate treatment mandatory. Diagnosis and treatment at the Macon Hospital depends upon the condition of the patient. While the diagnosis of severe premature separation, with sudden pain, rigid uterus, shock, absence of fetal heart tones, and hemorrhage, affords little difficulty, that of mild or moderate premature separation presents more of a problem. In these cases, as in placenta previa, a lateral film is obtained. If the presenting part is well engaged and the patient is bleeding late in pregnancy, the diagnosis of premature separation is entertained. This is confirmed by sterile vaginal examination, with artificial rupture of the membranes at this time, if they are accessible. We seem to attach more importance to a good lateral film than other hospitals and clinics.

Treatment of our premature separations as in their diagnosis depends upon the severity of the separation. Since these patients frequently have severe hemorrhage, and since we have no means of knowing how much blood will be lost before the termination of the case, our first aim is replacement of blood lost and prevention and treatment of shock. As with placenta previa we cannot place too much emphasis on adequate blood replacement. Furthermore we should like to stress the use of oxygen along with blood in these patients; this is equally valuable for the fetus. As with placenta previa, the fulminating severe cases, while dangerous, offer the easiest problem since what must be done is obvious almost as soon as the patient is seen: the uterus must be emptied and bleeding controlled. We have found that bleeding can be controlled in practically all cases by artificial rupture of the membranes and application of a tight abdominal binder. Labor usually progresses rapidly, but if labor does not progress some have given intravenous or intramuscular Pitocin in order to improve the character of the contractions. If given intravenously, five units is placed in 500 cc. of five per cent glucose in distilled water, and administration is regulated as to the intensity of the contractions. If the above measures fail and there is difficulty keeping up with the blood loss and maintaining blood pressure, cesarean section is indicated. Convelaires uterus may be found at laparotomy, and if so a hysterectomy is carried out.

The group of patients who show a partial detachment with moderate bleeding and slight fetal distress present the greatest problem. Each one of these patients presents a different problem depending on the type of labor, condition of the baby, dilation of the cervix and blood loss of the mother, all of which must be considered in management of the case. In this hospital the tendency is toward more conservative management. Most of our premature separations are treated by artificial rupture of the membranes, a tight abdominal binder, oxygen, and blood replacement. Pitocin may or may not be used. If there is little or no labor with evidence of fetal distress and the above measures fail to produce a good labor, cesarean section may be done.—*Shirley et al., J. M. A. Georgia, April 1955.*

JOURNAL EXCERPTS

Our Sacred Trust—Every doctor faces a new patient with the desire to make an accurate diagnosis and to put into action a course of treatment that will be curative. This necessitates a complete history of the patient, as well as a thorough physical examination, often augmented by tests from the laboratory and x-ray departments. But our doctor who is idealistic has additional motives in the handling of the patient. He wants his patient to feel, when the treatment is finished, that his doctor was not only learned and skillful but also that he was sympathetic, and kind, and understanding that, although he was busy, he was never hurried, that, although he was often tired and harassed, he was never ill-tempered nor impatient. Good medical care can be taken for granted in the United States today. But the real key to an improved position of respect for our profession lies in the relationship between the individual patient and his doctor. It is a temptation for the doctor to be somewhat self-important and even a little pompous, to adopt an attitude of independence, and to brush aside the questions of his patients concerning the details of diagnosis and treatment. In this way he may well satisfy his own ego but he will certainly not gain the respect or friendship of his patients. Our idealistic doctor, on the other hand, is anxious not only to cure the ills of the body but also to quiet the uneasiness of the mind, and alleviate the mysterious fears that torment almost every patient who finds it necessary to consult the doctor. We demand that the patient have complete confidence in all that we prescribe. We must strive manfully to inspire such confidence and to deserve it. The fact that we have so much more scientific knowledge than did our grandfathers in the profession does not mean that we have to sacrifice any part of the warm friendly relationship that they had with their patients; a relationship that made them so greatly loved and respected by their generation. We must offer more than just pills and cold steel. If a doctor follows these ideals, is it not likely that his patients will be grateful and will respect not only him but the profession at large and that they will be anxious to help us on those projects in which we seek to enlist the aid of the public? Our profession has been constantly, and will be constantly, beset by serious economic problems. Many of these problems are political in nature and are settled by men in public office. Each of these men has his own doctor and his philosophy toward the medical profession is largely influenced by his personal relationship with that doctor. And every constituent who seeks to influence each office holder also has a doctor. The question is, do these people love and respect their own doctor or has he missed his opportunity by allowing them to develop a feeling of resentment or cynicism toward him?—Trabue, J. Tennessee State M. A., April '55.

The Problem Before Us in Tuberculosis—We are now living in a time of gratifying improvement in the treatment of tuberculosis. The problem has been to retain what has proven useful in the past and to add what is practical in the present. This means change and constant re-evaluation. Some of the advances have taken place because of research but many of the present discoveries in treatment have been on a more or less accidental pattern. A look at what is ahead in the immediate future would appear to be appropriate at this time.

To us it is important that we keep the ultimate goal of eradication of this disease in mind. It appears at the present time that this goal will only be achieved far in the future but the ideal is worthy of our constant attention. Prevention is always superior to treatment; however, it is most necessary that we have adequate treatment in order to achieve eradication. The prevention of infection today will mean fewer cases in the future. Tuberculosis is the type of disease where an infected person may suffer a clinical activation of his lesion many years later. In 1900, in our large cities, many died of tuberculosis but today there has been a tenfold decrease in mortality. A number of factors contributed to this decrease in mortality. The social aspects of this disease as reflected in food, rest, and housing are quite important. In some countries where the social aspects have not improved, the death rate still remains as high as previously.

Segregation of the tuberculous case in the hospital, and thereby separation from the community, has decreased the number of people being infected. Improved treatment since 1947 has caused a marked decline in the mortality. We are sure that in the future this will be reflected in a declining morbidity. Today, the number of cases found remains about the same as in the past but some of the cases now found are due to more intensive case finding. Tuberculosis formerly was found most frequently in the young but is now found more in the older adult male. This trend is likely to continue into the near future. This older adult person is the hardest to find by survey and is often reluctant to leave his job or position in society to seek adequate treatment. This positive sputum case is a very potent source of dissemination and will make the problem of eradication difficult, unless community opinion will rally for good control measures. Tuberculosis is still more prevalent among the poor and the crowded. Measures aimed in this direction are and will be important. The cases here must be detected, aided and sheltered, because one case of infectious disease in a community affects the entire community.—Newcomer and Sauer, Maryland State M. J., March '55.

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THE MONTH IN WASHINGTON

This session of Congress probably is more than half over. On health legislation, two things are becoming apparent. First, Congress is not attaching much urgency to some of the early-blooming issues that were so prominent in January and February. For example, it has been in no hurry to take up such subjects as reinsurance for health plans, guarantees of mortgage loans for health facilities, expanded care for military dependents, or health insurance for government employees. Action may yet come in a rush, and some of these bills may be passed, but not all. The second fact is that Congress this year does seem willing, if not anxious, to take some action on mental health.

One explanation of the slow pace of most health bills may lie in the fact that this is only the first session, and that bills not passed this year may be enacted next year, an election year. At any rate, unless a bill is definitely voted down, it remains alive until the 84th Congress adjourns in 1956.

At the top of the list of favored mental health bills are identical measures by Chairman Priest of the House Interstate and Foreign Commerce Committee and Chairman Hill of the Senate Labor and Public Welfare Committee. These bills, which were not initiated by the Eisenhower administration, provide \$1,250,000 in grants for a three-year survey by non-governmental professional groups of all phases of mental health. Presumably the survey would be conducted by a Joint Commission on Mental Health, formed by the Council on Mental Health of the American Medical Association and the American Psychiatric Association, with a number of other groups participating.

Considered by these committees at the same time was the administration's proposal for a three-year program of outright grants to states for new and existing mental health programs with Congress deciding on the money needed.

The survey bill was reported favorably by the House Committee within 10 days after hearings were completed. The grants proposal was held up with the explanation that it properly should be considered with legislation not then before the committee.

The Priest committee then turned its attention to fields other than health; it also

has jurisdiction over legislation on railroads, aviation, communications and federal power. Senator Hill's committee continued on health bills, next taking up his and Senator Bridges' bill for a three-year, \$90 million grant program for construction of non-federal laboratory facilities for research in a wide range of chronic diseases.

The measure failed to get AMA support, the Board of Trustees deciding it was too broad and loosely written. Dr. George F. Lull, AMA secretary-general manager, pointed out to the committee that the bill gives no voice to the states and local communities in development of a planned and integrated system of laboratory and other research facilities.

Prior to final Appropriations Committee action on next fiscal year's budget for the Federal Civil Defense Administration, the AMA urged favorable consideration of the agency's request for medical supplies and equipment. Dr. Lull made the point that it was futile to plan for the medical phase of civil defense unless the profession has the supplies to work with. He warned of the medical problems that would arise from an enemy attack, including radioactive fallout. The House proceeded to approve a \$30 million appropriation for stockpiling of supplies and equipment, \$5.3 million less than the administration asked. However, the committee pointed out that FCDA has millions of dollars in unexpended balances.

This same appropriations bill carries approximately \$750 million for the Veterans Administration medical budget for the next fiscal year. The measure contained one surprise: an unexpected \$16,885,000 increase for a start on remodeling certain VA hospitals. The VA originally asked the Budget Bureau to approve \$20 million for this purpose, the Bureau pared it down to \$13,815,000 but the House raised it to \$30 million.

Another bill that moved through the House with a minimum of controversy was one reestablishing the authority of the Secretary of Health, Education, and Welfare to channel surplus government property to health and educational institutions at no cost.

SOUTHERN PEDIATRIC SEMINAR

Pediatrics, Internal Medicine, Obstetrics,

and Gynecology will feature the 35th annual session of the Southern Pediatric Seminar, Saluda, North Carolina. The course will be divided into three one-week sessions and those who wish to attend may come for one, two or three weeks. The first week (July 11-16) and the second week (July 18-23) will be devoted to pediatrics and internal medicine. The third week (July 25-30) will be given over to obstetrics and gynecology.

The faculty of the Seminar consists of men from all over the South who are leaders in their respective fields. About half of them are members of medical school faculties and the other half are men in private practice. In this way there is a well balanced program of the theoretical, the scientific, and the practical.

The Seminar is for the general practitioner, and is fully accredited by the American Academy of General Practice for post-graduate instruction. Those desiring further information should write to Dr. D. L. Smith, Registrar, 187 Oakland Ave., Spartanburg, South Carolina.

BENIGN STOMACH ULCER PREVALENCE

The actual incidence of benign ulcers of the greater curvature of the stomach may be much higher than the reported cases, despite statements that this benign type of ulcer is rare in comparison to malignant ulcers in similar location.

This is the suggestion of Dr. Frank S. Browne, radiologist from Wichita Falls, Texas, in the March issue of the American Journal of Roentgenology, Radium Therapy and Nuclear Medicine.

He reported a patient in which most of the characteristics associated with carcinoma were present, yet microscopic examination revealed a benign peptic ulcer.

The ulcer itself had been discovered during an x-ray examination of the gastro-intestinal tract.

"Verbal reports from numerous observers would indicate that the actual incidence of benign greater curvature ulcer is much higher than reported cases," concludes Dr. Browne.

ATABRINE IN PETIT MAL ATTACKS

The antimalarial drug Atabrine effectively combats petit mal attacks in epilepsy, it

is reported in the New England Journal of Medicine (251:897, 1954).

Drs. Douglas T. Davidson and Cesare Lombroso of the Harvard Medical School note that Atabrine was useful against petit mal seizures, either alone or in combination with convulsions. Most patients in the series had failed to respond to other methods of treatment. The antimalarial was administered in 0.1 gm. tablets, in dosages ranging from 0.1 to 0.4 gm. a day.

There is considerable agreement among clinicians today on the principles of treat-

ment for epilepsy, the authors say. Most concede that the drug to be used, and the dose, must be individualized due to each patient's variation in tolerance and need for medication. Effects of full doses of the least toxic drug should be tested first and the drug withdrawn if therapy proves unsuccessful. When one drug used singly fails, seizure control is often achieved by a combination of drugs in full dosage, the Boston doctors say.

They caution against sudden withdrawal of effective medication as likely to trigger a series of seizures.

TRANSACTIONS OF THE ASSOCIATION

1955 SESSION

PART I

TRANSACTIONS OF THE ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA HELD AT MONT- GOMERY APRIL 21-23, 1955.

First Day, Thursday, April 21

The Medical Association of the State of Alabama convened in annual session in the Blue and Gray Room of the Whitley Hotel, Montgomery, and was called to order at 9:00 A. M. by the President, Dr. Joseph M. Donald of Birmingham.

Prayer was offered by the Rev. Merle C. Patterson, Pastor of the First Presbyterian Church of Montgomery.

Addresses of welcome were delivered by Hon. W. A. Gayle, Mayor, City of Montgomery, and Dr. A. E. Thomas, President, Montgomery County Medical Society, host to the Association.

Reports of committees were called for by President Donald, each, in its turn, being referred without discussion to the State Board of Censors.

COMMITTEE REPORTS

Medical Service and Public Relations

The past twelve months have been very busy ones for this Committee and the Public Relations Director. A number of new projects have been undertaken, some of which are continuing activities; and at the same time those activities which have become a normal part of the work of this Committee have been continued.

Just after the annual session of the Association

last year, a summary of the report of this Committee was sent to all members of the Association. Since such a small percentage of the members are present at the business session and since it was felt that far too few people would read the transactions, it was the feeling of the Committee that a summary of work accomplished should be sent out. The reaction to this summary, which was called "Your Money and How It Was Spent," was good.

Last year it was reported that a physician placement service was being instituted. This is, as you remember, an information service for physicians seeking a location and for towns seeking a physician's services. After a year of operation, there are presently sixty-one physicians listed with the service, forty towns listed which are seeking a physician, and fourteen locations where the profession feels a certain type of medical service is needed. Naturally these people and places change from time to time as places are filled or as physicians find locations. Presently the service is being expanded to include interns, residents, and senior medical students. The aim with the students is primarily to interest them in settling in Alabama. Those physicians and towns which have used the service have been high in praise of the efforts the profession is making in their behalf.

Last fall, the Committee expanded its health information service to include an exhibit at the Alabama State Fair. It was necessary to design and have built a permanent background which would be adaptable to future exhibits. The subject treated last year was overweight. Each person was weighed, and three pieces of literature were given to him. During the week at the Alabama State Fair some 9,500 people were weighed and received the pamphlets. The booth was given good publicity by the newspapers and radio. In fact the whole effort was so successful that it was repeated at the South Alabama Fair in Montgomery two weeks later. In this instance 3,000 people visited the booth. At

this point the Committee wishes to pay tribute to the ladies. The Woman's Auxiliaries to the Jefferson County and Montgomery County Medical Societies furnished ladies who manned the scales. Their cheerful and helpful cooperation added greatly to the success of the exhibit, and the Committee offers its appreciation to each of them.

The literature on overweight was received with such favorable response, especially the pamphlet entitled "Your Weight and Your Life," which was a cut-out of a fat man, that it was decided to carry the project further. The civic clubs in Alabama were contacted and asked if they would like to receive the literature. An affirmative response was received from 310 men's service clubs. Where there was a physician member of the club, he was requested to distribute the pamphlets at a specified meeting. Where there was no physician, the club secretary handled the distribution. Some 14,500 of each of the three pamphlets were distributed. This means that a total of about 81,500 pieces of literature was distributed at the fairs and the civic clubs. A questionnaire to the distributors at the various civic clubs indicated that the effort was highly received by the men.

As a result of this program, the Chairman of this Committee was invited to appear on the Blue Cross-Blue Shield-sponsored television program to explain some of the services the Association makes available to the public. It is too early to evaluate the effectiveness of this effort, although a number of letters and cards requesting health information pamphlets have been received.

The Committee has made a greater effort during the past year to motivate and assist County Medical Societies in public relations activities. It is indeed gratifying to notice the strides which have been made by the Jefferson County Medical Society in several fields, as well as activities of the Mobile and Montgomery County Medical Societies. Mention should also be made of the health forum which the Tuscaloosa Society instituted. The Committee feels that the County Medical Societies are the groups which have the greatest opportunity in the field of public relations and that, therefore, the Societies have the greatest challenge. It is hoped that the Societies will continue to increase their public relations activities.

During the past two years this Committee has made extensive studies of various means of making our Medical Practice Act more effective. Plans used by other states have been studied, and several of these have gone to the County Medical Societies for their consideration. To date no other plan has been found that did not seem to be a compromise when compared to our present law. This is the underlying factor in the stand which the profession will doubtlessly endorse for the coming legislative session.

During the last two legislative meetings, the responsibility of managing our legislative program has been split among several people. The Board of Censors has placed the full responsibility on this Committee during the coming months. The organization for this effort is

sound and is familiar to all. The success of our efforts during the coming months will depend on each member's assuming the responsibility of carrying through on all requests which may be made of him. The Committee is confident that such will be the situation.

Although the special committee on the American Medical Education Foundation will make a separate report, this Committee has worked with the A. M. E. F. Committee and urges every member to lend his support to this very worthwhile project.

The Committee has kept informed on the work being done by the Alabama Academy of General Practice with the medical students. The preceptorship program is growing and gives evidence of becoming an important part of the training some students are receiving.

The Committee has continued its close liaison with the Washington Office of the American Medical Association. At one meeting, Dr. Cyrus H. Maxwell of that office met with the Committee and the contact men for Alabama's national representatives.

The routine functions of the Public Relations Office need not be elaborated here. Neither is it necessary to enumerate the various specialty groups which have received assistance. The functions of the office have grown to such an extent as to necessitate more clerical assistance; therefore, the Director now has two full-time people in his office.

Following is a statement of expenditures for 1954 and a proposed budget for 1955. It should be pointed out that expenditures last year exceeded the 1954 appropriation and that the proposed 1955 budget will exceed the expected appropriation for this year. The Committee feels, however, that present efforts warrant its drawing on its reserves. One other fact needs pointing out. The placement service accounted for \$1,171.23 of the 1954 expenses.

EXPENDITURES IN 1954 AND BUDGET PROPOSED FOR 1955

	Expenditures 1-1-54 to 12-31-54	Proposed Budget for 1955
Salaries		
Director	\$ 7,200.00	\$ 7,200.00
Clerical Assistance	4,000.00	\$11,200.00
		5,500.00
		\$12,700.00
Travel		
Committee	138.02	150.00
Director	2,631.97	2,769.99
		3,000.00
		3,150.00
Printing		
Health Column	247.20	250.00
Literature & Bulletins		500.00
Report to Association	108.74	750.00
Exhibit Materials	855.93	1,211.87
Office Equipment	350.65	50.00
Office Rent	960.00	960.00
Stationery and Supplies	1,317.31	1,500.00
Telephone and Telegraph	372.29	500.00
Postage	1,336.58	1,500.00
Art		50.00
Library	122.02	100.00
Exhibit	622.28	25.00
WAMASA Newsletter	200.00	200.00
Miscellaneous	261.80	250.00
	\$20,724.79	\$21,735.00

During the past year, some of the cash reserves of the Committee were used to buy U. S. Savings bonds or were placed in a savings account. This was done in order to realize some gain from the reserve. The following is a financial statement for the Committee in 1954.

FINANCIAL STATEMENT
1954

Total funds brought over from 1953 ..	\$17,212.92
Total of 1954 appropriation (from dues collected in 1954) ..	19,020.00
Grand total of Medical Service and Public Relations funds Expenditures (1954)	\$36,232.92
Amount spent (1-1-54 through 12-31-54) ..	\$34,553.02
Credit due for refunds (1-1-54 through 12-31-54) ..	748.23
Total expenditures (1-1-54 through 12-31-54) ..	33,804.79
Balance due Medical Service and Public Relations through 12-31-54 ..	\$ 2,428.13
1954 Expenditures for Savings 2-29-54—\$1,000 Series J, U. S. Savings Bonds ..	\$10,080.00
2-26-54—Transfer from checking account to Public Relations Savings Account No. 35412 ..	3,000.00
	\$13,080.00

The Committee wishes to thank the membership for past support and urges each and everyone to increase his participation in the programs which are underway or will be instituted during 1955.

J. O. Finney,
Chairman
E. L. Gibson
Joe H. Little
F. M. Thigpen
H. L. Holley
H. G. Hodo, Jr.
J. G. Daves

A. C. Gipson
J. Paul Jones
Julius Michaelson
Ex Officio
J. M. Donald
Douglas L. Cannon
D. G. Gill
Mrs. J. M. Chenault

The Committee on Medical Service and Public Relations is interested in civil defense. It is a timely subject and one which needs more emphasis. Governor Folsom has appointed a Deputy Director in charge of Medical and Health Services of the Civil Defense Department of the state of Alabama. At this time it gives me great pleasure to introduce this man to you—Dr. Louis Friedman.

Dr. Friedman discussed the state's civil defense program and solicited the interest and support of all of Alabama's physicians.

Maternal and Child Health

Maternal mortality in the state of Alabama for the year 1954 has been resistant to improvement as compared with the report for the previous year, except in the category of toxemia. During 1953 toxemia accounted for 29% of the maternal deaths, whereas in 1954 the percentage was only 11.6%, which may indicate a greater availability of prenatal care for the indigent patient.

During the twelve month period from January 1, 1954 to January 1, 1955, 103 maternal fatalities occurred in the state of Alabama. Your Committee obtained from the medical attendant a complete report of the medical facts incident to each maternal death in 82 of the 103 fatalities. Many of the reports were complete with all laboratory data and one included a complete copy of the hospital chart. The frankness and willingness of the physicians in Alabama to cooperate in any way to reduce maternal mortality is the most refreshing fact contained in this report. With a little more effort on the part of all members of this Association who attend women in labor, and a continuation of current interest, maternal mortality, although at an apparent standstill, can be substantially reduced.

By way of comparison, in 1953 the maternal mortality rate was 1.40% per thousand live births (white .06% and colored 2.65%). In 1954, the maternal mortality rate was 1.30% per thousand live births (white .06% and colored 2.30%).

The leading causes of the 103 maternal deaths in 1954 are as follows:

Hemorrhage ..	31
Toxemia ..	12
Septic abortion ..	11
Ectopic pregnancy ..	8
Pulmonary embolism ..	6
Cesarean section ..	5
Infection ..	3
Spinal anesthesia ..	3
Ruptured uterus ..	3

The importance of hemorrhage as a cause of death of the pregnant patient can be seen from the above tabulation. The next three leading causes of death, namely, toxemia, septic abortion and ectopic pregnancy combined only equal deaths from hemorrhage. The seriousness of blood flowing from a pregnant woman cannot be overemphasized.

It is surprising to note that deaths due to internal hemorrhage resulting from ruptured ectopic pregnancy was the fourth leading cause of maternal death. The most important aid in the early diagnosis of ectopic pregnancy is mental alertness for the disease. Death from ectopic pregnancy is preventable if diagnosed early.

Most deaths resulting from cesarean section were attributable to the indication for section, namely, placenta previa or abruption of the placenta, which reemphasizes the fact that blood replacement in hemorrhage cases prior to and during the section shares equal importance with the operation.

There were three deaths caused by spinal anesthesia. This cause of death has been mentioned in previous reports of this Committee and stresses the necessity for extreme care in administering this type of anesthetic.

In addition to the study of maternal deaths, your Committee is making a detailed study of all premature deaths during the year 1954. We have not been as successful in getting replies to the premature questionnaires as with those sent out in regard to maternal deaths. Question-

naires numbering 590 have been sent, with only 289 replies, or 49%. A full report will be made later when we feel that the maximum number of questionnaires has been returned.

It will be of interest to you to know that both the American Academy of Pediatrics and the Alabama State Pediatric Society have state committees on premature care. Your Chairman is also on these committees. We are working in an integrated program which I hope will result in much improvement in our premature care and a lowering of our premature death rate.

The Committee wishes to thank all physicians concerned with the maternal fatalities for their prompt and complete cooperation which greatly facilitated the preparation of this report. We hope we can get better returns from the premature deaths.

Hughes Kennedy, Jr.
Chairman

Buford Word
Thomas C. King, Jr.

Cancer Control

Cancer is still the cause of more deaths within the state of Alabama than any other disease other than those of the cardiovascular system. Well over 3,000 deaths were attributed to cancer in Alabama last year.

EDUCATION

With our present knowledge of treating and diagnosing cancer, many can be saved who are now dying from cancer.

Approximately 75,000 to 80,000 people within the United States are dying who could be saved with our present methods if they were only diagnosed early and proper treatment instituted.

Through the State Health Department, under the leadership of Drs. Gill, Cannon and Smith, there is a considerable amount of thought being given to the educational phase of the cancer problem. Each member of the Association receives its Journal, edited by Dr. Douglas Cannon. This Journal has a number of articles pertaining to the diagnosis and treatment of cancer and there are often special editorial sections devoted to some phase of the disease.

The Cancer Bulletin is an excellent journal devoted to the topic of cancer and is distributed to each member of the Association through the State Health Department. This publication reviews various phases of the disease and there are numerous leading articles with reference to the newer diagnostic procedures and treatment.

There are a number of motion pictures, both for the physician and for laymen, available through the State Board of Health. The film entitled "Self Examination of the Breast" is probably one of the most popular ones for lay groups and is probably one of the most important ones of the group.

There is very close cooperation between the Committee on Cancer Control of the Association and the Alabama Division of the American Cancer Society.

It was a privilege of your chairman to attend the 1954 annual meeting of the American Cancer Society in New York last fall. It is a real inspiration for physicians to see the extremely enthusiastic manner in which the lay public has accepted the challenge presented to them through the American Cancer Society. Some of the leading men in business and politics are very active in this great movement.

The three phases of the work of the American Cancer Society were vividly presented—first, education, particularly through the lay groups but a considerable amount of education was also presented through the section devoted to physicians. This particular phase of the meeting was attended by a number of physicians from throughout the United States and the program was extremely well accepted. Research and service were the other two phases strongly stressed at the various meetings.

If it is ever the privilege of any of our physicians, I strongly urge that they attend one of these national meetings of the American Cancer Society as it is a most inspirational experience to those of us interested in the control of this disease.

CLINICS

We have six state-aid clinics in Alabama—two in Birmingham, two in Montgomery and two in Mobile. These clinics take care of only indigent patients who are properly certified through their local county health and welfare departments and then are passed on by the State Health Department, Division of Cancer Control under the leadership of Dr. W. H. Y. Smith.

It may be worth while to review the procedure of getting a patient treated through the state-aid clinic. First, the patient has to be an indigent one. Next, he should have the proper blank filled out by his family physician. (The blank may be obtained from the local health department or through the State Health Department.) After the family physician has filled it out, it is sent to the local welfare department who in turn investigates these patients and then it is sent through the county health department to the State Health Department in Montgomery where it is acted upon.

If the patient is properly certified, he is notified to which clinic he is to report and at what time. A copy of this is sent to the family physician and a copy to the clinic to which the patient is to report. These patients are seen in the various clinics by a group of physicians and the diagnosis and proper treatment established. A copy of the findings is sent to the local physician so that when the patient returns home he will know what has been done.

It is essential that these patients be highly suspected of having malignancy before being sent into one of the clinics as the facilities of the clinics are not those of general diagnostic work-ups.

Terminal cancer cases should not be sent to the clinic as there is nothing that can be offered most of these patients and the trip and discomfort of reporting to the clinic will often outweigh any good that can be done.

Last year there were 1348 applications to the various clinics. Out of this number, 1290 were approved and 1,079 of these reported to the clinics. Some 212 patients failed to report to the clinics or were too ill to make the trip. The number of patients having malignancy out of the 1290 was 656. Nonmalignant lesions numbered 372. No definite diagnosis was established in 51 patients, 15 patients refused treatment, and 54 patients were too far advanced for treatment. There were 14 not eligible for tumor clinics due to their financial status. There were 2 nonresidents of Alabama who were not eligible for treatment through the tumor program. There were 7 who were not eligible as they had hospital insurance.

Mobile Tumor Clinic had 144 new patients, Norwood Tumor Clinic 177, Oak Park 176, Providence 38, St. Margaret's 161, and University Tumor Clinic 383. Besides these new patients there were follow-ups on old patients which probably amounts to 6 to 10 old patients for each new patient.

Neoplasm of the buccal cavity and pharynx numbered 48, digestive organs and peritoneum 48, respiratory tract 23, breast 70, cervix uteri 164, corpus uteri 16, ovaries 10, nonspecified sites 214, and lymphatic and hemopoietic systems 24. A total of 656 new malignant patients were seen through the tumor clinics in 1954.

In 1954 we added leukemias, Hodgkin's disease, and lymphomas to the group who would be accepted through the tumor clinic program. There were also selected cases of brain tumor and early cases of the respiratory tract. In 1954, selected cases of carcinoma of the skin were added to the list available for treatment. There were 151 carcinomas of the skin treated and 12 malignant melanomas of the skin.

The age of the patients varied from newborn to 85 and over, the largest group being 35 to 70. There were 256 white males, 421 white females, 101 colored males, and 301 colored females treated in the clinics last year—Montgomery County 68 patients, Mobile 52, Clarke 33, Blount 31, Shelby 27, and Jefferson 23 patients. If anyone is particularly interested, a complete statistical report can be obtained from the State Health Department through the office of Dr. W. H. Y. Smith.

Due to the limited appropriation for the cancer program, expenses have to be greatly curtailed and probably some of the more advanced patients are not being completely treated.

The American Cancer Society, Alabama Division, has come to the aid of those patients who are unable to pay for the necessary drugs to keep them comfortable. One can apply for aid through the local cancer society and a dollar per day will be allowed these patients. This request has to be done through the family physician who will be responsible for signing the necessary papers and forwarding them on to the American Cancer Society office in Birmingham.

The American Cancer Society will furnish dressings and these can usually be secured through the local clinics. The American Cancer

Society, in special cases, has underwritten special medications, particularly hormones, special drugs and surgical appliances that are not taken care of under the state program. In a number of cases, the patients are not able to pay for their transportation and again the American Cancer Society has underwritten transportation for some of them.

RESEARCH

No specific research is being carried on under the direction of the State Medical Association. A considerable amount is being engaged in the state but it is under the supervision of the various schools and research centers.

The American Cancer Society has participated to a large extent in the research phase of cancer in Alabama. Mrs. Meade will tell you in her report what the American Cancer Society is doing in regard to education, research and service.

RECOMMENDATION

With our current knowledge of cancer, early diagnosis and early treatment are probably the most important phases of our present control of cancer.

There have been no specific changes in the treatment of cancer in the past year. The recognized treatments are destruction, either by surgery or radiation.

There has been some difficulty in obtaining sufficient blood from the Red Cross blood banks for cancer patients. It has been suggested that the families of the patients sent to the tumor clinics should get Red Cross blood donor cards and, by so doing, it would certainly prevent a good many difficulties in procuring blood when these patients are admitted to the hospitals.

Some increased thought should be given to the care of terminal patients, particularly from a nursing standpoint. State-aid clinics do not offer home nursing care and this responsibility has to be assumed by the family physician and local health department, particularly in the rural areas.

RECOGNITION

The Committee wishes to extend its recognition to the unselfish physicians who are giving so generously of their time to the six state-aid tumor clinics.

One can readily realize that there is a considerable amount of time given by the physicians to the tumor clinics when they see well over 1000 new patients a year besides the number of old patients. The total will probably run to 8,000 to 10,000 a year.

Dr. W. H. Y. Smith and his staff are doing an excellent job with the cancer program in the State and we only wish that there was increased financial appropriation so that this program could be extended.

As mentioned in the body of the report, the American Cancer Society, Alabama Division, under the leadership of Mrs. Lillian G. Meade was and continues to be very cooperative in

trying to promote the eradication of the number two killer, cancer.

John Day Peake,
Chairman
J. P. Chapman
T. B. Hubbard, Jr.
W. N. Jones
A. E. Casey

REPORT, ALABAMA DIVISION
AMERICAN CANCER SOCIETY
MRS. LILLIAN G. MEADE
STATE COMMANDER AND
EXECUTIVE DIRECTOR

As Executive Director of the American Cancer Society, Alabama Division, I am pleased to submit this report to the Medical Association of the State of Alabama.

The American Cancer Society, Alabama Division, is very proud of the fact that it is the only organization approved by the American Medical Association and the Medical Association of Alabama for its three-point program of research, education and service in the control of cancer. The Alabama Division will do everything possible to continue to merit this approval.

This last year has been a very busy one for the Alabama Division. Its lay education program has been intensified, through the showing of films, distribution of literature, talking before civic groups, etc.

We've had an increasing amount of educational work in our business & industry program this year. By this we are reaching people we could not otherwise have an opportunity to contact.

To date the American Cancer Society has given over \$700,000 for cancer research in Alabama to the following institutions:

Southern Research Institute, Birmingham,
Cancer Research Laboratory, Medical College
of Alabama, Birmingham,
Alabama Polytechnic Institute, Auburn,
Tumor Registry, Birmingham,
Tuskegee Institute, Tuskegee.

We continue to appropriate the yearly sum of \$1600.00 to the Mobile Tumor Clinic for clerical assistance. This year we made an appropriation of \$2500.00 to the Medical College of Alabama for the purchase of antibiotics, hormones, etc., for medically indigent cancer patients.

At the present time discussions are going on for larger appropriations to the Medical College of Alabama for needed research grants.

The 1954 campaign of the American Cancer Society was the most successful in its history approximately \$232,000 being raised.

We are now ready for our April 1955 campaign, and hope we will continue to show success. The national goal of the American Cancer Society this year is twenty-four million dollars, against a twenty million goal last year. The increase was brought about largely because of the number of requests for cancer research grants that had to be turned down by our organization last year for lack of funds.

The answer to the cancer problem might be in some test tube in a laboratory, and we hope

that with additional funds this year we'll be able to make more grants for cancer research.

The service program of the American Cancer Society has expanded, and we continue to furnish medicine for palliative treatment to medically indigent cancer patients, when requested by the person's physician; bandage and dressing material to the medically indigent patient; transportation to any of the State-Aid Clinics, for patients who are approved by the Cancer Division of the State Health Department.

The demands for aid are increasing every day, and the American Cancer Society will expand its service program as far as its funds will allow. However, we will never lose sight of the fact that research and education are our primary aims.

We have recently purchased an artificial hip disarticulation limb (tilting-table type) for a four year old child whose leg had been removed because of cancer.

This past year the American Cancer Society did something it has long contemplated—made a film on its activities in the Alabama Division. This film is nine minutes in length, in color and sound, and we are very proud of our achievement. It was a tremendous undertaking.

In addition the Publicity Director and the State Executive Director have compiled a new booklet on The Story of Cancer in Alabama, bringing up to date our former publication of the same name.

We have also approved a grant of not more than \$1,000.00 yearly for the Visiting Nursing Association of Jefferson County to supplement care of medically indigent cancer patients.

The State Executive Director and State Representative travel all over the state, making talks to civic groups, keeping our program going.

We have sixty-seven (67) County Commanders in charge of our educational program, and then sixty-seven (67) Campaign Chairmen in charge of our April campaign.

With our very small staff, it makes a tremendous amount of work for the state Office, but we are endeavoring to keep our administration costs at the lowest possible level.

We would like to call again the attention of the physicians to the fact that the Cancer Society has available in its State Office for the use of doctors in Alabama, the following films:

Breast Cancer,
Gastro-Intestinal G-I,
Uterine Cancer,
Cancer—The Problem of Early Diagnosis,
Lung Cancer—The Problem of Early Diagnosis,
The Exfoliative Cytologic Method in the Diagnosis of Gastric Cancer.

These films are available upon request without any charge to any doctor in the state. It is hoped that they will be still further used by the County Medical Societies during the year.

It is also hoped that each County Medical So-

Mental Hygiene

The Committee on Mental Hygiene wishes to call to the attention of the Association the following developments during the past year:

1. The Committee urges the Association to support the mental health activities of the Southern Governors' Conference. A committee was appointed by the Governor to survey the resources and needs of the state. The Committee has submitted its report and recommendations. In order to implement these recommendations as to the training of additional personnel, strengthening of existing facilities and the development of additional services, an appropriation by the Legislature is required.

2. The Committee has conferred with Blue Cross-Blue Shield relative to benefits for mental illnesses. The following points were considered:

a. The Blue Cross-Blue Shield is a service organization and wishes to provide complete medical and surgical coverage.

b. Actuarial statistics regarding mental illness are incomplete.

c. Without additional statistics, benefits cannot be considered and in the opinion of Blue Cross-Blue Shield this coverage will require an additional premium.

d. Blue Cross-Blue Shield is willing to continue and enlarge its study of the problem if there is sufficient interest on the part of the medical profession and/or the subscribers.

e. This Committee is continuing to urge Blue Cross-Blue Shield to provide coverage for mental illnesses and seeks the support of this Association in the undertaking.

3. The Committee commends to the Association Dr. Elmer Caveney, former Chief of the Department of Neuropsychiatry, U. S. Navy, and recently appointed Chairman of the newly organized Department of Psychiatry and Neurology of the Alabama Medical College. Dr. Caveney's appointment augurs well for the expansion of mental health treatment and training facilities.

4. The Committee congratulates Dr. John McKee, Director, Division of Mental Hygiene, State Department of Health, and his staff on their work during the past year. The established educational and preventive services of the Division have been enlarged and a Mental Health Clinic has been inaugurated in Montgomery in conjunction with the local Health Department.

5. The Committee congratulates Dr. J. Wilbert Edgerton, Executive Director, Alabama Association for Mental Health. That organization, under his leadership, has implemented the work of other organizations in the state and been of invaluable service to the mental health program and the State Hospitals. Mental Health Societies have now been established in Jefferson, Montgomery, Mobile, Tuscaloosa, Lee, Etowah, Dallas, Chambers, Talladega and Lauderdale-Colbert Counties and at Tuskegee. We urge you to affiliate with your local group.

6. The Committee urges that the Association support the budgets of the State Health Department and the State Hospital System before the Legislature.

7. The Committee again wishes to express its appreciation to this Association and to other organizations and individuals for their support of the mental health programs of our State Hospitals and the State Department of Health. Without the active assistance of groups and individuals, the work with those organizations, of necessity, would have to be seriously curtailed. Some have been extraordinarily generous of their talents and time. This service has been welcome and deeply appreciated. Not only have the patients benefited but this interest and encouragement have been a source of inspiration to us actively engaged in the mental health effort.

Jack Jarvis
Chairman

F. A. Kay
J. S. Tarwater

Blindness and Deafness

Much has been done for the prevention of blindness and deafness in Alabama this past year—a continuation of a program well entrenched in Alabama for many years. Greater medical eye, ear, nose and throat care is now available to Alabamians. The earliest recognition of eye and ear pathology is very apparent among the profession. More civic participation is apparent, especially in supplying funds for test devices and then making available the visual or hearing equipment for the needy persons. State and federal government welfare contributions have continued favorably. No new legislation seems necessary to further the aims of this committee. Laws affecting the prophylaxis of the eyes of the newborn, sale of fire crackers, etc., have proved most beneficial. The Committee recommends for further study the possible elimination of the sale of indelible (aniline) pencils because of the seriousness of their injury to eyes. Also, in small businesses, hazardous occupations should be encouraged to restrict employees to tempered (hardened) or plastic lenses. The one occupation this past year showing a high incidence of severe eye injury was that of carpentry, when nails accidentally entered eyes with great force and damaged them severely.

Endemic areas of hereditary types of blindness and deafness still exist, as in other states, and it is hoped a solution of this problem shall eventually evolve.

It has been gratifying to the Committee to know of no instances where individuals of all economic levels could not obtain excellent eye or ear care immediately. The many Lions Clubs of our state are to be commended for their contribution to eye care for the needy.

Karl B. Benwith,
Chairman
George Johnson
Gayle Johnson

Tuberculosis

For several years your Tuberculosis Committee has made an exhaustive study of the problems encountered in the eradication and control of the disease in the state and has rendered a detailed report of the findings, together with recommendations for improvement of the service. This year the report will be condensed in keeping with accomplishments of the previous reports which appear to be in statu quo.

Although tuberculosis death rates have been declining for fifty years or more, it appears that we have now reached the crossroads here in Alabama. For the first time we are experiencing no appreciable decline in deaths attributed to the disease. In Alabama's mortality scale of the ten major causes of death, the disease still ranks in 9th place. There were 415 deaths in 1954, with a rate of 13.0, as compared with 467 deaths and a rate of 14.7 in 1953, indicating no appreciable decline. (See Table 1.)

Ten Leading Causes of Death*
Table 1

Leading Causes in Rank Order	1954		1953		1948-1952 Average
	No.	Rate	No.	Rate	
Diseases of the heart	8,208	256.1	8,214	259.1	7,700 250.9
Vascular lesions	3,416	106.6	3,380	106.6	3,068 100.0
Cancer	3,125	97.5	3,074	96.9	2,834 92.3
Accidents	1,836	57.3	1,855	58.5	1,872 61.0
Pneumonia	805	25.1	948	29.9	1,049 34.2
Immaturity*	587	7.2	682	8.3	805 9.6
Nephritis	563	17.6	599	18.9	997 32.5
Diseases of the arteries	482	15.0	474	14.9	344 11.2
Tuberculosis	415	13.0	467	14.7	819 26.7
Homicide	362	11.3	370	11.7	424 13.8

*Rates are per 100,000 population except immaturity which is per 1,000 live births.

T. B. Prevalence

A sharp distinction should be drawn between incidence and prevalence. The annual incidence is the number of new cases which develop in a year, while the prevalence of tuberculosis is the number of existing cases, known and unknown, on any given date. Although the death rates in Alabama are falling, the incidence and prevalence are gradually increasing, which is still in contradistinction to the national trend. In 1953 there were 11,878 cases, with 12,290 cases in 1954. This presents a tremendous problem since half of these patients have a positive sputum at one time or another and are continually spreading the disease. (See Table 2.)

Table 2
TB Prevalence

Year	TB Cases
1942	6,157
1951	10,252
1952	11,555
1953	11,878
1954	12,290

DIVISION OF TUBERCULOSIS CONTROL ALABAMA STATE BOARD OF HEALTH

TB Incidence in State Clinics

Due to the gradual decrease in funds allocated to the operation of the state diagnostic clinics, these has been a corresponding decrease in the number of individuals x-rayed by that Division. However, the selection of patients for study has

been excellent, with an increased yield of positive cases. (See Table 3.) Of the 121,107 persons x-rayed, 2,220 new cases of tuberculosis were discovered.

Table 3
Ratio of New Cases of Tuberculosis to Number of Individuals X-Rayed by Year 1947-1955

Year	No. X-Rayed	No. New Tuberculosis Cases
1947	72,736	3,051
1948	199,244	2,773
1949	212,751	2,624
1950	396,100	3,092
1951	230,162	2,661
1952	142,246	948
1953	139,522	2,131
1954	121,107	2,220

Federal funds as well as state funds are diminishing for TB Control at a time when we can ill afford the reduction. (See Table 4.)

Table 4
Federal Funds Allocated for State Tuberculosis Control by Years 1948-1955

1948	\$152,000.00
1949	150,362.00
1950	148,404.00
1951	144,406.00
1952	135,000.00
1953	125,655.80
1954	100,752.00

This reduction in case finding facilities is occurring when other states are stepping-up their case finding services which is so essential in a good balanced program.

STATE SUBSIDY PLAN

State subsidy for tuberculosis patients has improved considerably during 1954 but restrictions on the usage of the conditional appropriation have made it almost impossible to utilize the fund to any great extent. It was hoped by the institutions that the participation of patient funds would be reduced, thereby allowing more patients to be hospitalized for the same amount of money available in the counties for hospitalization. (See Table 5.)

Table 5
State Subsidy for Tuberculosis Patients
1947-1955

Year	Per Diem	Patient Days	Hospital Beds	State Appropriation
1947	\$1.00	200,632	668	185,000
1948	\$1.50	217,621	674	300,000
1949	\$1.30	211,430	674	300,000
1950	\$1.30	226,548	708	300,000
1951	\$1.50	236,421	708	300,000
1952	\$1.86	252,006	708	450,000
1953	\$1.87	249,900	759	450,000
1954	\$2.32	257,704	742	891,475
				Plus
				conditional 500,000
				Amount spent from this fund 113,062.93

Curtailment of Sputum Study

Because of a lack of sufficiently trained personnel, the laboratories of the Alabama State Board of Health have discontinued the policy of sputum cultures and have requested the Sanatoria to restrict greatly the number of specimens sent in for study. Mind you, this is happening at a time when sputum cultures are an absolute must in the modern present-day management of tuberculosis patients. Whatever the cause of this curtailment, it must be remedied immediately.

RECOMMENDATIONS

1. That we reappraise our methods of tuberculosis control and bring them up to modern present-day techniques and new avenues of attack.
2. That immediate and definite steps be taken to restore the availability of sputum culture study which is so necessary in the modern day management of tuberculosis.
3. That the state of Alabama, the Health Department and the Medical Association take immediate steps to provide surgical facilities for the operative and curative treatment of tuberculosis. The lack of surgical facilities is still the number one problem of institutions in Alabama today.

Paul W. Auston,
Chairman
W. J. Tally
A. J. Viehman

Physician-Druggist Relationships

Doctors from all over the state are opposed to druggists selling Rx items over the counter, especially the injectables and the barbiturates.

The Committee recommends that each County Medical Society have a meeting with the druggists of the county at least once a year. Most of the problems could be solved.

The Committee suggests that the doctors do not give the drugs left by the retail representatives of the pharmaceutical houses with the labels left on, especially the barbiturates and the antibiotics. This will relieve the druggist of the embarrassment of telling the customer that he or she cannot get the drugs without a doctor's order or Rx.

Cases are being reported by lay periodicals that many habitues of barbiturates are being made; and also near fatal reactions from too prolonged use of penicillin, such as stomatitis.

W. M. Salter,
Chairman
B. Frank Jackson, Jr.
A. J. Treherne

Anesthesiology

Anesthesiology residency programs at the Medical College of Alabama in Birmingham and at the Lloyd Noland Hospital in Fairfield progressed well during the past year. These institutions again urge interested physicians to contact them concerning part-time or full-time

training in anesthesiology. The need for well-trained physician anesthetists is ever increasing and will continue to do so.

During the past year Doctor John Adriani spoke on "Anesthetic Emergencies" at the Birmingham Academy of Medicine and Doctor George C. Thomas spoke on "Fires and Explosions in the Operating Room" in Florence. Both lectures were well attended by physicians in all branches of medicine.

On April 7, 1955 the Jefferson County Society of Anesthesiology was organized and officers elected. This group was formed to discuss common problems and to conduct scientific meetings.

In keeping with national policy, plans have been made to organize a Jefferson County Study Commission for study of operating room fatalities. This will be a committee of the Jefferson County Medical Society and will serve only as an advisory body. Groups of this sort have added immeasurably to the advancement of safe anesthetic procedure in hospitals throughout the country.

Inquiries have been made in the past by anesthesiologists seeking to locate in Alabama and by hospitals and doctors trying to secure anesthesiologists. In order to satisfy these wants an Anesthesiology Placement Service has been set up, and it is urged that further inquiries be made of this service in care of the chairman or secretary, Lloyd Noland Hospital, Fairfield, Alabama.

Alfred Habeeb,
Chairman
Alice McNeal
W. P. May

Liaison, UMWA Medical Care Program

At the annual meeting of our Association in 1954, this Committee was established as a permanent one. Webster's Dictionary defines liaison as a "connecting link" or "co-ordination of activities." Your Committee in carrying out its functions has attempted to perform them in accordance with the definition just given.

To review briefly, the United Mine Workers of America, Welfare and Retirement Fund, commonly referred to as the Fund, was established on May 29, 1946 by means of an agreement between the Union and the coal producers of the United States. The Fund is financed by royalty payments of 40 cents per ton of coal mined. The Fund has been operating in Alabama for six years, and its medical care program is administered by the Area Medical Administrator, plus the necessary ancillary personnel.

Practically no specific questions have been referred to the Committee by members of the medical profession or by officials of the Fund.

The Committee has met with the Area Medical Administrator and his chief business associate. The Fund acquainted members of the Committee with some of its problems experienced during the past year. Their main points of concern are those of hospital utilization and unnecessary surgery. Information was furnished to us that per one thousand beneficiaries there is a quite

high incidence of admissions to hospitals when compared with other groups. As a matter of fact, the rate of utilization in Alabama is the highest of any area in the coal mining regions. Their average patient stay is slightly higher than the national average, and the national average is approximately seven to eight hospital days per patient. Also, per one thousand beneficiaries there seems to be a quite high incidence of surgery, particularly as regards such things as hemorrhoidectomies, operations on the female organs, hysterectomies, ear, nose and throat procedures, and certain other procedures that do not involve the removal of tissue. The Fund does not know the answer to these problems but is making every effort to alleviate the situation. They have been meeting with certain physicians and some hospital staffs to discuss this problem in an effort to reach a reasonable solution. It might be mentioned that some members of the medical profession have informed the Committee that they requested a meeting with officials of the Fund to discuss similar problems but such a meeting was never arranged.

The Committee feels that over utilization of hospital facilities for patients, unusual average length of stay per hospital patient, and the performing of unnecessary surgery concerns not only the medical program of the Fund but also other prepayment plans and the medical profession and the public at large. The Committee realizes that there may be isolated instances of this and the medical profession should make every effort to correct it. We do not feel that these problems apply to the vast majority of the members of the medical profession. It should be noted, however, that only a physician can admit a patient to a hospital and only a physician can discharge that patient, and only a physician can perform surgery. Therefore, the question directly involves the medical profession. The Committee believes that the organization of actively functioning tissue and surgical privileges committees within hospital medical staffs is the best approach toward correcting some of these problems, especially that concerning unnecessary surgery. The Committee recommends to the Association that efforts should be made to have an even wider application of the tissue committee principle to include review of all surgical procedures even when no tissue is removed. The medical audit, which can be accomplished by members of the medical profession, is also a worth-while undertaking in an effort to solve or clarify some of the problems confronting the medical profession and about which the public is becoming more and more aware.

In an effort to alter the high rate of hospital utilization, the Fund as a pilot study has arranged with certain general practitioners that the Fund would make available to them in their offices or clinics the services of specialist consultants and would pay for the services of the consultants, as well as any service he requested from the physician's office or clinic. It is believed by the Fund that this offers some hope in solving this problem and at the same time providing the necessary medical care.

The Committee was informed that the Fund

is attempting to do some research work with certain of their problem cases, such as those requiring frequent and repeated hospitalization and those having psychosomatic involvement. They are interested in arriving at a decision as to what is the best procedure to follow in providing those individuals with the proper medical and hospital care.

From the standpoint of the medical profession, the main questions still are those of fees paid by the Fund and determination of which physicians will participate in the Fund's medical care program. During the past year the Committee learned that more and more physicians furnishing medical service to the Fund's beneficiaries are doing so on a more or less panel set-up, where the Fund pays them a stipulated amount per month for the services rendered. The trend seems to be that the Fund desires to go on that basis, rather than paying a fee for service rendered to the individual beneficiary. This change applies in all areas of the United States where the Fund operates. The remuneration paid a physician is based on the utilization of the time of the physician. Dr. Warren Draper, Chief Medical Administrative Officer of the Fund, refers to this as "fee for time."

There are certain areas in which the Fund operates that physicians in charge of a patient before admitting him for elective surgery or nonsurgical cases of an elective nature must have them seen by a consultant who is a specialist and who is employed and appointed by the Fund. The Committee believes that this is not universally indicated and it feels that a better approach can be made.

Up to now, the Fund will only pay a general practitioner when he treats a beneficiary who is a hospital patient. The Fund will pay a specialist for services rendered either in his office or in a hospital. As a rule, the general practitioner must refer the patient to a specialist before specialist service is authorized for the patient. The system just referred to above works an undue hardship on the general practitioner, interferes with the patient-physician relationship, and most likely adds to the costs of the Fund. We have been informed that the Fund is aware of this and it has hopes of remedying the situation so that the general practitioner can also be paid for services rendered in his office or clinic.

During the past few years, through the Council on Medical Service and Council on Industrial Health of the American Medical Association, several meetings have been held in the bituminous coal mining areas which were attended by members of national, state, and county medical societies, as well as physicians representing the Fund. To date, these meetings have seemed to be most worth while, a lot has been accomplished, and some mutual problems have been solved to the satisfaction of both sides. The atmosphere of these meetings has improved and it is felt that they have helped to widen the areas of agreement, narrow the areas of disagreement, and clear the air of antagonisms and distrust. As a matter of fact, an editorial in the December 11, 1954 issue of the Journal of the

American Medical Association takes notice of this. The editorial cites as an example of good liaison the results accomplished by the Area Medical Administrator of Tennessee and the medical profession there.

The Alabama Area Medical Administrator of the Fund has expressed to this Committee willingness to work with us in an effort to have closer liaison and to dispel antagonisms and suspicion. The Committee feels that this is a sensible approach to the problem and expressed its willingness to work with the Fund in solving problems that concern the medical profession. In order for this to be more effective, the Committee strongly believes meetings and conferences should be arranged as the problems arise and a frank and free discussion held before any hasty action is taken and before any untimely decision is made by either side. The Committee believes that if an honest and sincere approach is made toward solution of mutual problems, much benefit can accrue to all concerned. Unless such an approach can be made, then the efforts of the Committee are futile and actually there would be no reason for its continued existence.

Finally, we believe that at the next national meeting sponsored by the American Medical Association and dealing with medical care programs in the bituminous coal mining areas, this state liaison committee should be represented.

L. H. Hubbard
A. C. Jackson
T. J. Payne
Harold E. Simon
J. E. Wood
E. Bryce Robinson, Jr.,
Chairman

Blue Cross-Blue Shield

Nineteen fifty-four (1954) was another year of progress in the operation of Blue Cross-Blue Shield of Alabama. Some of the high lights from the accomplishments worthy of mention are:

At the end of 1954 there were approximately 600,000 Blue Cross members, and approximately 550,000 Blue Shield members.

Claims numbering 94,878 were paid during 1954, representing approximately $7\frac{1}{2}$ million dollars paid to hospitals, and approximately $3\frac{1}{2}$ million dollars paid to physicians, or a total of approximately 11 million dollars—or 89.9% of our total earned income.

Operating expenses for the year were 7.3%. The balance of 2.8% was added to reserves.

Without public acceptance of the program, and your cooperation, these accomplishments would not have been possible.

Nationally, Blue Cross has in excess of 48 million enrolled, and Blue Shield in excess of 32 million. In the year 1954 almost a billion dollars was paid to the doctors and the hospitals of this country and Canada for services rendered Blue Cross and Blue Shield members.

Contrary to the belief of many of our members within the medical profession, Blue Cross-Blue Shield of Alabama is not just another insurance company. The fact is Blue Cross was

organized as a non-profit corporation by the hospitals, the medical profession, and the public in 1936 to provide an opportunity for the citizens of the state to budget for hospital care. In 1946, after considerable study by our Medical Association, Blue Cross was requested to take on the operation of a Blue Shield Medical-Surgical Plan.

Blue Shield is the physician's plan, and rightfully so. Every one of the 77 plans now operating in the United States, Canada, Hawaii, and Puerto Rico was organized by the medical profession. Its administrative policies and benefits are all determined by the profession. Two-thirds of the approximately 1,200 board members are physicians engaged in private practice. The other members represent the public.

Our Blue Shield Plan enjoys a vital relationship with its creator, the Medical Association of the State of Alabama, as it is basic in Blue Shield that matters of medical practice be determined wholly and completely by the medical profession. Your representatives on the Executive Committee of Blue Cross-Blue Shield of Alabama have full control over all matters pertaining solely to the practice of medicine. We would also like to call to your attention the fact that Blue Shield is not only the physician's own plan but the only medical-surgical plan operating in the state of Alabama that is officially endorsed by our State Medical Association.

Because of the close relationship between Blue Shield and the medical profession, the public expects you as a physician to be familiar with, and have an understanding of, its function. The acceptance by the public in Alabama of Blue Cross and Blue Shield is certainly evidence it approves of the idea that was conceived by the medical profession.

There are many times when you as a physician might not agree with the decisions of Blue Cross-Blue Shield; however, you should keep in mind the fact that the amount of money the public is willing to budget for Blue Cross-Blue Shield determines the type of benefits to be offered.

One of the serious problems which we would like to present to you is the problem of admitting Blue Cross-Blue Shield members to the hospital primarily for diagnosis. This is a practice which, according to statistics, has been rapidly increasing during the past three or four years. If the plan were to honor admissions of this type, it would have one of two definite effects on Blue Cross-Blue Shield. Either they would no longer be solvent because of this tremendously increased expense, or the cost for the Blue Cross-Blue Shield certificate to the patient would have to be increased to the point where it would be almost prohibitive.

As most of you know, the plan is interested in maintaining excellent relations with the member hospitals, the physicians, and the subscribers. The Claims Department has been given specific and emphatic instructions that all claims shall be handled strictly on their individual merit, with the utmost fairness, and with a strong tendency toward giving the benefit of any doubt to the subscriber, the physician, or the

member hospital. In no sense of the word do they indulge in the practice of medicine or attempt to set themselves up as diagnostic prophets. It is necessary, however, that they take a definite stand on rejecting hospital admissions for purely diagnostic studies where no actual treatment was rendered.

We want you to know that a great deal of time and thought by trained personnel is put on each case before rejected as a purely diagnostic admission. Even so, we are sure that in a small percentage of these cases the plan may be in error. Here is where we want to make a strong plea to the physicians of Alabama to have complete confidence in and to cooperate fully with Blue Cross-Blue Shield. If a claim on one of your patients has been rejected, because in their opinion nothing but diagnostic studies were made, and if you feel that the rejection is unjust, don't blow your top and say that Blue Cross-Blue Shield is composed of a group of hard riding know-it-alls. Sit down and write them a letter giving your reasons why the case in question was not a diagnostic admission, and why actual hospitalization was necessary. They are anxious to review cases in which there is a difference of opinion regarding the action taken in the Claims Department. These cases will come up for further study and in the light of new information furnished by you, the physician, who certainly know more about the reasons for hospitalization than any of them could ever know, it may well be that a claim previously rejected may now be honored.

We would like to emphasize this fact again. They have no gimmicks at Blue Cross-Blue Shield by which they try to reject as many claims as possible. They are not in business to make money and are only interested in service to the subscribers, the member hospitals, and the physicians. They must have your cooperation and sympathetic understanding, however, in explaining to your patients why these cases must be rejected.

Possibly you have been concerned about a letter you received from Blue Cross-Blue Shield of Alabama stating that certain x-ray services rendered a hospitalized patient were not consistent with the diagnosis. To you as a physician this may seem unreasonable. However, it is not uncommon for them to receive hospital admissions such as the following:

1. Diagnosis of hemorhoidectomy, and also appearing on the hospital bill were such services as chest x-rays.

2. Diagnosis of gastroenteritis, and while the patient was hospitalized an x-ray of the skull was made.

3. Diagnosis of hypothyroidism, and appearing on the hospital bill were services such as x-rays of extremities—spine, hip, knee and tibia.

Blue Cross-Blue Shield is aware of the fact that certain patients hospitalized must receive certain diagnostic work before adequate therapy can be carried out. This type of diagnostic survey should be, and is, honored.

One of the important areas of medical expense

not yet covered by most Blue Cross-Blue Shield Plans is the so-called catastrophic case—the serious, hospitalized illness which may last from several months to a year or longer, with expenses extending far beyond the benefits provided in Blue Cross and Blue Shield contracts. These are the "excess liability" cases which can be included only if an additional membership fee or premium is charged. They occur only infrequently, to be sure, yet these are the very cases which may wipe out a family financially. Here again, Blue Cross and Blue Shield authorities are aware of the need and are experimenting with contracts which go part of the way, at least, toward covering these high-cost, long-lasting cases. Some plans, too, now offer benefits for the medical service required for nervous and mental diseases, tuberculosis, and other chronic conditions that were excluded from earlier contracts as too expensive. President Eisenhower's proposal for establishment of a federal reinsurance corporation was intended to make it easier for existing Blue Shield plans to extend coverage to catastrophic and long-lasting illnesses by passing on to a federal corporation some of the liability for the as yet unknown risks involved in these catastrophic illnesses. Advocates of this proposal believed that this was the minimum essential step to assure adequate health care for all. Opponents of the proposal, however, maintained that these risks could be covered by the plans themselves if additional premiums were charged. They argued that if no additional premiums were charged the proposed arrangement would amount to a federal subsidy for the Blue Shield plans—an eventuality most physicians, and Blue Shield executives are not prepared to accept. The Blue Shield plans, in fact, opposed federal reinsurance as unnecessary. For this reason the plans are now experimenting with the addition of some of these benefits and watching experience closely to determine how far they may go toward meeting the problem without endangering the plans financially or charging fees beyond the average family's ability to pay.

There are still many unsolved problems in Blue Cross-Blue Shield as there are more millions yet to be protected against the hardship and hazard of medical expense. If the plans are to succeed finally in answering the economic problems posed by advancing medical science and mounting costs, they must aim at covering the greater part of our entire population. A further opportunity to enlarge the role of health care in our society may lie in service to the poor and to those whose medical care is now the responsibility of one or another agency of government. If needed medical care could be provided to this part of the population through some arrangement between medical prepayment plans and government or local authorities, we would be meeting the needs of the sick poor in a voluntary system sponsored by the medical and hospital professions.

If we, as physicians, are to maintain the private practice of medicine as we enjoy it today, it is of urgent necessity that we educate the public to the fact that we have the answer to their health problem in offering them, through Blue

Cross and Blue Shield, a voluntary way of budgeting for their health needs.

B. W. McNease,
Chairman
J. H. Baumhauer
J. G. Daves
Luther Davis, Jr.
T. B. Hubbard
E. B. Robinson, Jr.

Committee of Publication
Douglas L. Cannon, Chairman

The monthly circulation of the Journal of the Association on December 31, 1954 was 2,025 copies. Cost of publishing and distributing was \$14,450.17. Receipts from advertising and non-member subscriptions were \$14,360.37. Thus the Journal was nearly self-sustaining.

Cost of printing and mailing the 1954 Transactions to the members of the Association was \$1658.57, a part of which (\$113.65) was recovered through sale of rosters.

SPECIAL COMMITTEES

Insurance

At the annual meeting of the Association in April 1954 a resolution on Simplified Insurance Claim Forms, presented by the Marion County Medical Society, was adopted. This matter was taken up with the Superintendent of Insurance of the state of Alabama, and we were informed that a committee from the American Medical Association and the insurance carriers was considering this on a nation-wide basis.

The national committee is now working on this problem. A recent letter from the Chairman states that progress is being made and that one simplified form has been adopted and that companies writing approximately 85 per cent of the group accident and health premium volume in the United States have agreed to its use.

It is now contemplated that some 6 simplified forms will be necessary, due to the diversity of benefits offered.

It appears that additional time will be required for the national committee to complete its work and it plans to report to the profession as progress is realized.

For further information on this subject you are referred to the February 12, 1955 issue of the Journal of the American Medical Association, pp. 596 & 614.

We recommend that no further action be taken at this time on the resolution of the Marion County Medical Society and that we await the final report by the national committee.

Last year the President of the Association recommended that a committee make a study of group health and accident, and liability insurance for its members and give its report and recommendations to the Association at this meeting.

The Committee has made a thorough study of this subject and has interviewed representatives from several large insurance companies doing this type of business.

**PROFESSIONAL LIABILITY INSURANCE
(MALPRACTICE)**

The committee has found that group liability insurance is available through several companies at a considerably lower rate than by individual purchase. Two insurance brokers have presented plans to include professional liability insurance along with health and accident insurance.

The Committee recently attended a meeting in Atlanta, which was called by the Insurance Committee of the Medical Association of the State of Georgia, to have a discussion on the apparent increase in the number of law suits or threatened suits against physicians and the marked increase in premium rates on professional liability insurance. Representatives from Alabama, Georgia, North and South Carolina, Virginia and Oklahoma attended this meeting.

We have been informed that the American Medical Association is working on a plan for liability insurance on a nation-wide basis. At this Atlanta meeting, however, it was generally felt that little would come from this effort.

The representative from Oklahoma gave a detailed discussion of the professional liability plan which has been in operation in that state for 15 years. We were told that all the doctors are well pleased and enthusiastic about it. We were certainly impressed and thought the Oklahoma plan should be given more consideration.

The Oklahoma plan is briefly as follows:

This is a group plan controlled by the State Association through the Association's Insurance Committee. There is a master policy (contract) held by the Association from the insurance company, and the physicians are issued certificates.

In addition to the State Association's Insurance Committee every county society has its insurance committee, and every physician in the state is urged to cooperate in making the plan work. The individual physicians are also urged to stick together and help out anyone who is being unjustly sued or threatened and at the same time not to condone the acts of a physician who is really guilty of neglect or misconduct. They are asked to work together to see that the public, the physician and the insurance company are treated justly.

The insurance investigator and the defense legal counsel are paid by the insurance company but the Association sees that the best men available are obtained and the Association approves them.

Any suit or threatened suit is first taken up by the County Society Insurance Committee. The doctor who is threatened is urged not to try to keep it a secret but take it up immediately with his local county committee and give it the complete details.

They feel that the insurance which costs the least in dollars and cents is frequently not the best. It is necessary that the physician be given adequate coverage and protection and that the insurance company collect enough in premiums to take care of the losses and make a reasonable profit. They also think that by the above meth-

od the number of suits and the loss experience can be kept at a minimum.

HEALTH AND ACCIDENT INSURANCE

We find that group health and accident insurance can be obtained for our members at a considerably lower premium rate than that obtained by individual purchase.

It was found that the companies differ, somewhat, in their offers. The premium rates vary. Some will insure members who are actively engaged in practice to age 70, while one has no age limit. Part of the companies pay sick benefits for 5 years regardless of house confinement, and 3 additional years if house confined. For members to obtain the insurance regardless of past medical history some companies require that 51 per cent of the membership take the insurance while others specify a smaller number. Some pay \$1,000 for accidental death and others \$5,000. Part of the companies set a limit to the amount of sick and accident insurance a member is already carrying, others have no limit.

The Committee has taken into consideration the fact that group health and accident insurance is already available to a moderate number of our members through other organizations. We find, however, that many of these would like to have more insurance.

We feel that one of the finest features of group insurance is that it may be possible to obtain coverage for members, in active practice, in the older age group, and others who have past medical histories or chronic illnesses that would prevent their purchasing regular sick and accident insurance.

By negotiations we feel that a plan can be worked out that will give maximal benefits at a minimal cost. Our investigations lead us to feel certain that for group insurance to operate at its maximum efficiency it is necessary that there be a contract between the Association and the insurance company in the form of a master policy.

We wish to recommend:

1. That this Association go on record as approving group health and accident and liability insurance for its members.
2. That this insurance be controlled by the Association through master policies.
3. That the Insurance Committee be authorized to negotiate and obtain the best rates and coverage possible, consistent with permanency and reliability.
4. That the Committee be authorized to put into operation a group health and accident insurance plan as soon as possible.
5. That studies be continued on group professional liability insurance and that the Insurance Committee be authorized to also put this into operation as soon as possible.

J. O. Morgan,
Chairman

Victor T. Hudson
Ben Carraway

On the Coroner System

Following the recommendation of the Board of Censors of the Association, its President, at the last annual meeting, appointed a committee to investigate the operation of the coroner system in the state of Alabama with a view toward making recommendations to the Association for the betterment of this program.

COMMITTEE ACTIVITIES

In the year since this Committee was appointed, the members have, individually and as a group, been actively engaged in the investigation of the present coroner system, both as to the legal foundations and actual methods of operation.

Two meetings have been held in Montgomery with members of the State Department of Toxicology and members of the committee appointed from the State Bar Association at the request of the President of the Medical Association. These meetings were held for the purpose of gathering information as to how the present system operates, and to obtain the ideas of various interested agencies in how the system can be improved.

One member of the committee has spent two weeks visiting in the Medical Examiner's Office of Nassau County, New York (which is considered the "model" medicolegal organization in the United States) and in New York City.

A summary of state laws dealing with medicolegal activities in all of the forty-eight states has been compiled. In this connection, the committee has corresponded with various officials of other states who are recognized authorities in medicolegal legislation and operation.

COMMITTEE FINDINGS

The committee finds that the laws governing the investigation of sudden and unexplained deaths and violent deaths in the state of Alabama are totally inadequate.

The Committee feels that there is a definite and urgent need for a revision of these laws.

In 1952, the latest year for which figures are available, there were 2,524 violent deaths in Alabama. There were 2,898 deaths which were unattended by a physician. There were 931 deaths in public institutions. This makes a total of approximately 6,353 deaths which, in the public interest, should have been investigated.

In studying the geographic distribution of population in relation to the availability of qualified medical personnel, the Committee finds that there are large portions of Alabama which are sparsely settled and in which there are few persons qualified, medically and otherwise, to perform the type of investigation which will be necessary under an adequate program.

While the laws of the other states have been studied, the Committee is of the single opinion that Alabama can best be served only by considering the situation as it now exists in this state; this situation being unlike that of any other state.

The Committee finds, at the present time, that the state has a central investigating office,

known as the State Department of Toxicology and Criminal Investigation, with headquarters located at Auburn, Alabama. This department has three branch offices, one in Mobile, one in Montgomery, and one in Birmingham. The department is definitely understaffed, and is working on a budget which provides insufficient funds. While the investigations performed by this department have been scientifically sound in most instances, the Committee feels that there is a genuine weakness in that medical personnel is not available to the Department of Toxicology for the performance of autopsies in difficult cases.

The Committee is of the opinion that there should be at least two additional branch offices of the Department of Toxicology established in the state to provide a wider coverage of scientific criminal investigation.

The Committee finds that during the year 1954 the State Department of Toxicology received \$72,100 for operating expenses. At the present time the department is requesting an increased appropriation for the establishment of two new offices. This would amount to approximately \$20,000 for equipment and an annual outlay of approximately \$32,000 for salaries and operating expenses.

Relative to the present Alabama law, the Committee finds that a coroner may order an autopsy if he has "reasonable cause to believe that the deceased has come to his or her death by unlawful means" (Title 15, Chapter 3, Section 78, Code of 1940). The phrase "reasonable cause to believe" is subject to wide variations in interpretation.

It is the feeling of the Committee that an entirely new law defining the types of deaths to be investigated should be written.

Due also to the extremely wide variations in interpretation of this law, and particularly this one phrase, at the county level, a definite need to know what the practices are in the various counties, as well as what facilities are available in the counties for the fulfillment of the legal requirements, is keenly felt. The Committee is now attempting to obtain this information which is vital to the drafting of an intelligent bill.

The Committee finds, according to statistics from the office of the Secretary of State, that there are approximately 25 counties in Alabama which do not, at present, have a coroner. Information from the office of the Secretary of State states that in these counties which have no coroner, and in which no one qualifies for election, a coroner may be elected by the simple process of writing in the name of a person in the proper place on the blank ballot. It is the opinion of the Committee that a definite service to the community and to the Medical Association could be accomplished if enough interest could be developed in these 25 counties to elect a physician as coroner.

COMMITTEE RECOMMENDATIONS

In view of the foregoing facts, the Committee recommends:

1. That the Association go on record as endorsing the increased appropriation requested by

the State Department of Toxicology and Criminal Investigation, this to be used for the extension of the department by the establishment of two new offices and for the increased activities of the Department which would result.

2. That the Association go on record as recommending to the State Legislature that an additional \$10,000 be appropriated to the State Department of Toxicology, and that this fund be earmarked for the performance of autopsies at the rate of \$50.00 per autopsy and travel expenses. These postmortem examinations would be performed by any certified pathologist in the state.

3. That the Association go on record as encouraging the participation of more individual physicians in the investigation of sudden deaths to the extent of accepting the job of coroner in their counties.

4. That the President of the Association continue the present committee in its present form for an additional two years in order that the coroner problem may continue to be held under study until an intelligent, comprehensive law, which will best serve the people of Alabama, can be drafted to insure the proper investigation in Alabama of deaths by violence or from unknown causes.

J. A. Cunningham,
Chairman

Brooks Bishop
I. M. Wise
J. S. P. Beck

American Medical Education Foundation

This is a new Special Committee of our Association and was recommended by Dr. J. O. Morgan in his presidential message to encourage contributions from members to the American Medical Education Foundation.

Dr. J. M. Donald appointed the Committee following last year's session and is composed of Dr. E. L. Gibson, Enterprise; Dr. Julius Michaelson, Foley, and Dr. H. G. Hodo, Fayette.

The first meeting of this Committee was held on July 29, 1954 and plans for a campaign mapped out.

A letter was sent to the president of each County Medical Society asking that he appoint a person or a committee in his society to encourage contributions to the American Medical Education Foundation. Quite a number of societies responded to this.

A letter was also sent to the four Division vice-presidents requesting a spot on their programs for the purpose of bringing before the members the importance of contributing to this fund. This was done at each of the Division meetings. This was also brought before the Alabama Academy of General Practice by one of the members of this Committee.

On November 15, 1954 a letter was sent to every member of the Association whether they had contributed or not, urging that they make a contribution. The response left much to be desired but was better than the year before.

During 1954, 141 contributors from Alabama gave \$4,989.25. Of this amount \$3,615.00 was contributed by 127 doctors. The remainder was given by the Southern Medical Association, Woman's Auxiliaries and County Medical Societies. In 1953, 30 contributors gave \$2,665.50 and \$1,570.00 of this was given by doctors.

For the year 1955 we have planned a more intensive campaign and have set a goal of \$10,000.00. This sounds big but when we remember that this is less than \$5.00 for each doctor in Alabama it is indeed small. Each County Medical Society can give us this help by acquainting each individual member with the need for his help.

H. G. Hodo,
Chairman
E. L. Gibson
Julius Michaelson

REPORTS OF OFFICERS

Report of the Secretary-Treasurer
Douglas L. Cannon

MEMBERSHIP OF THE ASSOCIATION

On March 1, 1958 of the state's 2121 physicians were members of the Association. On the same date last year there were 1924 members, and physicians in the state numbered 2108.

DEATHS

In the 12 month period ending March 1, forty-six doctors of Alabama have died, including a past president of the Association (Dr. Toulmin Gaines), a Life Counsellor (Dr. P. M. Lightfoot), and an Active Counsellor (Dr. J. C. Gladney). The complete obituary record is as follows:

Ashcraft, J. H.	Fayette
Blanton, Frank	Saragossa
Brook, C. L.	Tuscaloosa
Booth, J. L.	Tuscaloosa
Buchanan, J. P.	Montgomery
Cannady, N. B.	Dothan
Carpenter, J. A.	New Hope
Dailey, J. J.	Tunnel Springs
Denton, N. C.	Oneonta
England, J. T.	Mobile
Fonville, W. D.	Birmingham
Gaines, Toulmin	Mobile
Gary, R. E.	Tuscumbia
Gehrken, H. S.	Birmingham
Gladney, J. C.	Jasper
Graham, A. H.	Montgomery
Graves, Stuart	Tuscaloosa
Guin, J. C., Sr.	Moore's Bridge
Hairston, W. G.	Birmingham
Hughes, V. P.	Cullman
Jones, G. W.	Parrish
Kenan, James	Selma
Kennedy, W. C., Jr.	Florence
Lavender, C. B.	Hartselle
Lee, E. F.	Gastonburg
Lightfoot, P. M.	Shorter
Maclin, R. B.	Birmingham
MacQueen, J. W.	Birmingham
McDaniel, J. C.	York
Martin, R. A.	Pell City
McDiarmid, T. S.	Gadsden
Owen, H. G.	Quinton
Pritchard, C. D.	Russellville

Pruitt, E. P.	Birmingham
Reed, T. W.	Brewton
Robinson, H. W.	Livingston
Samuel, I. J.	Altoona
Sentell, J. H.	New Hope
Shores, S. S., Jr.	Carbon Hill
Tankersley, E.	Samson
Trice, D. H.	Boligee
Vance, J. G.	Birmingham
Waldrop, A. M.	Jasper
Watson, R. H.	Georgiana
Wilkerson, G. H.	Mobile
Young, J. D.	Fayette

THE FIFTY YEAR CLUB

Certificates of distinction are to be awarded to 25 members of the Association who have practiced their profession for fifty years, and the presentations will be made tomorrow morning immediately after the Jerome Cochran Lecture. Those who are to receive the certificates are as follows:

Benson W. Booth	Shorter
Edmund R. Cannon	Vredenburgh
Burwell S. Carpenter	Fairfield
James A. Chapman	Alexander City
K. W. Constantine	Palm Beach, Florida
Ezekiel H. Couch	Guntersville
Marvin Denton	Oneonta
Earle Drennen	Birmingham
Charles D. Feulner	Selma
James H. Flowers	Newton
George L. Gresham	Opp
Warwick W. Klein	Altoona, Rt. 2
Edwin G. Little	Gadsden
Howard C. Morland	Birmingham
Milton C. Ragsdale	Birmingham
Charles E. Rhodes	Jefferson
Neil E. Sellers	Anniston
Lovick P. Shell	Abbeville
Albert G. Sims	Birmingham
Percy B. Skinner	Fairhope
Samuel D. Suggs	Montgomery
William P. Sumners	Huntsville
Adrian S. Taylor	Bessemer
George M. Taylor	Prattville
William E. Warren	Ft. Payne

A posthumous award is to be made the family of Dr. Nathan C. Denton, recently deceased, who was to have received his certificate at this meeting.

PRESIDENTIAL APPOINTMENTS

Drs. E. Bryce Robinson, Jr., and B. W. McNease were appointed delegate and alternate, respectively, in the House of Delegates of the American Medical Association, their terms to expire December 31, 1956.

At the last annual session the Association authorized the appointment of a committee on insurance, and the president named the following to serve on it: J. O. Morgan, Chairman; B. M. Carraway and Victor T. Hudson.

Other appointments were made as follows to the committees of our organization: Medical Service and Public Relations—J. Paul Jones and Julius Michaelson; Mental Hygiene—J. S. Tar-

water; Maternal and Child Health—Buford Word; Cancer Control—T. B. Hubbard, Jr.; Blindness and Deafness—Gayle T. Johnson; Postgraduate Study—J. R. Garber; Physician-Druggist Relationships—A. J. Treherne; Anesthesiology—W. P. May; Tuberculosis—A. J. Viehman; Industrial Medicine—E. A. Isbell.

STATUS OF COUNSELLORS-ELECT

Last year, eleven members were elected Counsellors; namely, James H. Armstrong, William P. Baston, John M. Chenault, John W. Davis, Jr., Hugh E. Gray, Julian P. Howell, Augustus D. Matthews, Ernest G. Moore, Paul Nickerson, James R. Shell and Thomas B. Woods. They have qualified as required by the Constitution of the Association and are to be added to the Roll of Active Counsellors when the revision of the Rolls is made on Saturday morning.

OFFICERS TO BE ELECTED

Officers to be elected at this session are a President-Elect, a Vice-President for the Southeastern Division to succeed Dr. S. W. Windham whose term has expired; a Secretary-Treasurer to succeed Dr. Douglas L. Cannon whose term expires this year, and two Censors for five years to succeed Drs. E. V. Caldwell and J. G. Daves whose terms expire also.

There are to be elected, in addition to these, 16 Counsellors: From the 1st Congressional District, 2. J. M. Weldon is to be elevated to Life Counsellor. R. D. Neal's first term of seven years has expired. 2nd District, 1. Robert Parker's first term of seven years has expired. 3rd District, 2. V. J. Thacker is to be elevated to Life Counsellor. Arthur Mazyck's first term of seven years has expired. 5th District, 1. W. H. Riser is to be elevated to Life Counsellor. 6th District, 1. W. J. B. Owing's second term of seven years has expired. 7th District, 2. J. C. Gladney is deceased. M. S. Whiteside's second term of seven years has expired. 8th District, 4. E. M. Chenault and Rayford Hodges are to be elevated to Life Counsellors. The second terms of seven years of J. C. Bragg and A. M. Roan have expired. 9th District, 3. R. E. Cloud's second term of seven years has expired. The first term of seven years of W. S. Littlejohn and E. Bryce Robinson, Jr. have expired.

APPOINTMENTS TO BE MADE

Committees presenting vacancies because of expiration of term of members are Medical Service and Public Relations (E. L. Gibson and Joe H. Little), Mental Hygiene (Jack Jarvis), Maternal and Child Health (Hughes Kennedy, Jr.), Cancer Control (John Day Peake), Prevention of Blindness and Deafness (George E. Johnson), Postgraduate Study (A. S. Dix), Physician-Druggist Relationships (W. M. Salter), Anesthesiology (Alice McNeal), Tuberculosis (Paul W. Auston), Industrial Medicine (D. O. Wright), Liaison, WMWA Medical Care Program (J. E. Wood), Insurance (Victor Hudson), Coroner System (J. S. P. Beck), and AMEF (Julius Michaelson).

It will be the responsibility of the next President to make appointments to fill these vacancies, and to name a delegate and an alternate

to the American Medical Association for terms of two years to succeed Drs. J. Paul Jones and D. G. Gill whose terms will expire December 31, 1955.

ASSOCIATION FINANCE

The accounts of the Association for the year 1954 have been audited by Crane, Jackson and Wilson, Certified Public Accountants of Montgomery, and the audit constitutes the concluding pages of this report.

The report reveals that seven \$500 U. S. Savings Bonds owned by the Association will mature on July 1, 1955, and six on January 1, 1956. Approval of the Treasurer's report should embrace authority for him to invest the proceeds from these bonds in other U. S. Savings Bonds.

To The Officers and Members,

The Medical Association of the State of Alabama, Montgomery, Alabama.

Gentlemen:

We have examined the cash accounts of the Treasurer of The Medical Association of The State of Alabama for the calendar year 1954, and have prepared the following statements therefrom:

Exhibit "A": Summary Statement of Cash Receipts and Disbursements for the Calendar Year 1954.

Exhibit "B": Statement of Cash Disbursements for the Calendar Year 1954.

Exhibit "C": Securities Owned at December 31, 1954.

Our examination included the tracing of all recorded cash receipts to the bank statements, and the vouching of all returned cancelled bank checks to the record of disbursements. Cancelled bank checks were also examined as to amount, signature and endorsement. Records of receipts and disbursements were proved for mathematical accuracy.

Securities owned by the Association, detailed in Exhibit "C", were verified by physical examination on January 28, 1955, at the safety deposit vault of the First National Bank of Montgomery. We were informed by the Association Treasurer that fourteen Series "J" \$1,000.00 United States Savings Bonds which were purchased for \$10,080.00 during February, 1954, are for the Medical Service and Public Relations Committee of the Association.

Respectfully submitted,
Crane, Jackson and Wilson,
By H. C. Crane, C. P. A.

Jan. 31, 1955

EXHIBIT "A"

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA
 SUMMARY STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
 FOR THE YEAR ENDED DECEMBER 31, 1954

Cash Balance—January 1, 1954:

Checking Account—First National Bank	\$24,531.18
Savings Account—First National Bank	1,507.52 \$26,038.70

Cash Receipts:

Association:

County Dues	\$24,785.00
Counsellors	2,345.00
Refunds for Postage, Telephone, etc., from the Medical Service and Public Relations Com- mittee	748.23
Sale of Association Rosters	113.65
Interest on Savings Account	38.44
Past President Pin	12.00 \$28,042.32

Journal:

Advertising	\$13,422.82
Cooperative Medical Dividend	763.15
Non-Member Subscriptions and Sales	156.25
Refund of Printing Expenses	18.15 14,360.37
American Medical Association Dues	5,850.00 \$48,252.69

Cash Disbursements (Exhibit "B"):

Association	\$ 4,521.83
Medical Service and Public Relations Committee	21,473.02
Journal	14,405.17
American Medical Association Dues	5,850.00
Purchase United States Savings Bonds (M. S. and P. R. Committee)	10,080.00 56,330.02
<i>Excess of Disbursements over Receipts</i>	\$ 8,077.33

Cash Balance—December 31, 1954:

Checking Account—First National Bank	\$12,415.41
Savings Account (Association)—First National Bank	2,528.45
Savings Account (M. S. and P. R. C.)—First National Bank	3,017.51 \$17,961.37

EXHIBIT "B"

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA
 STATEMENT OF CASH DISBURSEMENTS
 FOR THE YEAR ENDED DECEMBER 31, 1954

Association:

Salary—Douglas L. Cannon	\$ 600.00
Printing and Mailing 1954 Transactions	1,658.57
Annual Meeting Expenses:	
Guest Speakers	\$ 353.79
Printing and Mailing Programs	254.62
Badges	126.42
Exhibit Expenses	89.53
Employee Expenses	40.31 864.67

Expenses of Delegates to Meeting of American Medical Association	569.42
Other Printing and Stationery Costs	388.48
Postage	119.00
Cabinet and Typewriter Stand	92.32
Accounting Services	71.25
Dues—Conference of Presidents	50.00
Fidelity Bond—Treasurer	50.00
Clerical Service	35.00
Office Supplies and Expenses	13.79
Safety Deposit Box Rental	5.50
Bank Exchange	3.83 \$ 4,521.83

Medical Services and Public Relations Committee:

Salaries:

W. A. Dozier, Jr.	\$ 7,200.00
Emmett Wyatt, Jr.	3,000.00
Mrs. Marianne M. Baisden	1,000.00 \$11,200.00
Travel Expense—W. A. Dozier, Jr.	2,750.00
Printing and Stationery Costs	2,385.11
Postage and Postal Meter Rental	1,931.12
Office Rental	960.00
Office Equipment and Fixtures	420.94
Telephone and Telegraph	418.98
Display Equipment (Alabama State Fair)	354.48
Office Supplies and Expense	316.02
Annual Grant to Women's Auxiliary	200.00
Payroll Taxes	152.00
Exhibit Space—Alabama State Fair	150.00
Travel Expense—Alabama State Fair	138.02
Subscriptions and Dues	48.10
Expense to Annual Session	41.00
Notary Public Policy Premium	7.25 21,473.02
<i>Total Carried Forward</i>	\$25,994.85
<i>Total Brought Forward</i>	\$25,994.85

Journal:

Salaries:

Douglas L. Cannon, M. D.	\$ 600.00
Luette Kilpatrick	1,020.00 \$ 1,620.00
Printing and Mailing Journals	12,785.17 14,405.17

American Medical Association Dues 5,850.00

Purchase United States Savings Bonds for Medical Service and Public Relations Committee 10,080.00

Total Disbursements \$56,330.02

EXHIBIT "C"

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA
SECURITIES OWNED
DECEMBER 31, 1954

Quantity	Description	Date of Issue	Purchase Price	Redemp- tion Value 12-31-54	Increase	Date of Maturity	Maturity Value
7	\$500.00 Series "F" United States Savings Bonds No. D191057 F to No. D191063F	7-1-43	\$ 2,590.00	\$ 3,430.00	\$ 840.00	7-1-55	\$ 3,500.00
6	\$500.00 Series "F" United States Savings Bonds No. D220060F to No. D220065 F	1-1-44	2,220.00	2,886.00	666.00	1-1-56	3,000.00
4	\$500.00 Series "F" United States Savings Bonds No. D274010F to No. D274013F	6-1-44	1,480.00	1,890.00	410.00	6-1-56	2,000.00
3	\$500.00 Series "F" United States Savings Bonds No. D385709F to No. D385711F	5-1-45	1,110.00	1,371.00	261.00	5-1-57	1,500.00
11	\$500.00 Series "F" United States Savings Bonds No. D386331F; No. D386367F to No. D386369F; No. D386371F; No. D386373F to No. D386376F; No. D386378F; No. D386379F	11-1-46	4,070.00	4,807.00	737.00	11-1-58	5,500.00
3	\$500.00 Series "F" United States Savings Bonds No. D677782F to No. D677784F	5-1-49	1,110.00	1,213.50	103.50	5-1-61	1,500.00
2	\$1,000.00 Series "F" United States Savings Bonds No. M1510584F to No. M1510585F	5-1-49	1,480.00	1,618.00	138.00	5-1-61	2,000.00
1	\$10,000.00 Series "F" United States Savings Bonds No. X355045F	5-1-49	7,400.00	8,090.00	690.00	5-1-61	10,000.00
14(A)	\$1,000.00 Series "J" United States Savings Bonds No. M32178J to M32191J	2-1-54	10,080.00	10,136.00	56.00	2-1-66	14,000.00
				\$31,540.00	\$35,441.50	\$ 3,901.50	\$43,000.00

(A) Purchased for the Medical Service and Public Relations Committee.

*Report of Vice-President Windham
Southeastern Division*

The standard of medical practice in the Southeastern Division has continued to improve. This improvement has been brought about by increasing hospital facilities, more complete diagnostic facilities in individual doctor's offices, apparent increasing interest in medicine by physicians in general, and a steadily increasing number of young men beginning practice in this Division. Special credit should go to the Alabama Chapter of General Practitioners and other fine pro-

fessional programs produced by the various specialty organizations in the state. It is my sincere hope that this increasing interest will continue.

The Division was the guest of the Houston County Medical Society for an annual meeting on February 17, 1955. The professional program was excellent, the attendance fair, and the hospitality of the host society superb.

Based on observations made during the past four years, I should like to recommend, with

special reference to the office of Vice-President, the following:

1. Copies of all official business of the County Medical Societies or individual members with the State Board of Censors and/or State Department of Public Health be sent direct to the Vice-President of the Division. This should include a copy of the official rolls of the respective county societies, new members added to the rolls, and announcement of any deaths during the year. Also any new hospital facilities, either in the form of constructions or additions to already existing institutions, health centers, diagnostic centers, etc. There should also be included a copy of the report of health officers of the respective counties. This recommendation is made in order that the Vice-President for the Division could have a better knowledge of the overall health conditions in his jurisdiction.

2. Special designation be given the Vice-Presidents at the State Medical Association meeting at least comparable to that of the Counsellors.

3. That a certificate, signed by the President and Secretary of the State Medical Association, designating the years of service be given to the incoming Vice-Presidents.

4. At the completion of his term, that he be given a life-time Counsellor's position requiring the payment of Counsellor's dues until he has been a member of the Association for 30 years or until he resigns said position.

I have enjoyed the co-operation given me during these past four years. It has been a true pleasure and privilege to have served in the capacity of Vice-President for the Southeastern Division.

Report of Vice-President Payne
Northwestern Division

The fall meeting of the Northwestern Division was held in Tuscaloosa on November 3, 1954. The scientific session was very interesting and enjoyable. All participants were members of our own Division. Doctor Ruby Tyler, President of the Tuscaloosa County Medical Society, and her entire society spared nothing to make the social hour and dinner one of the most enjoyable. I again wish to thank them for their hospitality.

I have again served as a member of the Legislative Committee from the Seventh Congressional District and attended a meeting of the Committee in Montgomery. As contact man from my county I have had conferences with newly elected members of the State Legislature on subjects of interest to the medical profession. Working with the Public Relations Director, good contacts have been made with the Alabama Pharmaceutical Association, and I believe it stands ready to help us in our legislative problems. I urge each member of our Division to help strengthen our Medical Practice Act. I believe this can best be done by encouraging enforcement of the present law.

The shortage of trained nurses continues to increase. Several months ago I appeared before the Public Relations Committee and requested

that a study of the situation be made. I was asked to serve as chairman of a subcommittee to make the study. Due to circumstances beyond my control, we have not had a full committee meeting but one has been called and I hope a report can be made in the near future.

The cost of malpractice insurance continues to rise. This is difficult to understand, since there appear to be fewer malpractice cases than several years ago. There has been some talk that maybe the State Association could offer us cheaper insurance than we are now able to get. I recommend that the State Board of Censors investigate this possibility.

Report of Vice-President Carter
Southwestern Division

A joint meeting of the Southwestern Division and the Black Belt Medical Assembly was held in Selma, December 16, 1954. The following scientific program was most instructive and enjoyable:

(1) Cervical Cytology—Hunter M. Brown, M. D., Birmingham.

(2) Differential Diagnosis of Diseases of the Chest—A. H. Russakoff, M. D., Birmingham.

(3) Tuberculosis—Rex Perkins, M. D., Birmingham.

(4) Nervous Problems of the Aged—Benjamin F. Morton, M. D., Birmingham.

The Dallas County Medical Society was host to the joint meeting. A most delicious dinner was enjoyed at the Selma Country Club by the doctors and their wives. I would like to express my thanks to the Dallas County Medical Society for the social and scientific success of the meeting.

The attendance at the meeting was again very discouraging and embarrassing. Only thirty-six registered for the scientific program from the entire Southwestern Division. I am thoroughly convinced the Division meetings should be discontinued, and I recommend this to the Board of Censors.

Report of Vice-President Gray
Northeastern Division

The annual meeting of the Northeastern Division of the State Medical Association was held at Gadsden on October 20, 1954 at the Reich Hotel. The Northeastern Auxiliary had its meeting at the same time.

The members of the Etowah County Medical Society were delightful hosts on this occasion and the companionship of the Auxiliary members was greatly enjoyed at the dinner following the scientific meeting.

Highlights of the excellent program consisted of a discussion of Recent Developments in the Medical and Surgical Treatment of Pulmonary Tuberculosis by Col. John B. Moring and Major Paul DeCamp of the Fort McClellan Hospital, Fort McClellan, Alabama. A paper on Aspirin Poisoning was given by Dr. Gertrude Luther of Anniston, Alabama.

Other subjects of unusual interest to the general profession were talks on Problems in the Diagnosis of Operable Heart Lesions by Dr. Joe Reeves and the Diagnosis and Treatment of Segmental Arterial Disease by Dr. W. Sterling Edwards, both from the Medical College of Alabama.

The Vice-President wishes to thank the Etowah County Medical Society for an instructive meeting and to express his appreciation, especially, to the Auxiliary members for their help in the meeting.

During the year, the only other meeting was that of the State Chapter, International College of Surgeons which was held in Florence. I was unable to attend but heard much favorable comment by those who did.

Message of The President

I wish, first of all, to thank the members of the Medical Association of the State of Alabama for the great honor and privilege of serving as your President the past year. I feel I have obtained a very broad education in the affairs of organized medicine in the last two years as President-Elect and President of this Association. It has caused me to realize, more than ever, my short comings in attempting to fulfill the duties and responsibilities of this office.

On behalf of the Association, I wish to express sincere appreciation to our host, the Montgomery County Medical Society, for the splendid arrangements it has made for our meeting. It is a particular pleasure to preside here in Montgomery. We always look forward with great pleasure to meeting in our Capital City.

I have been deeply impressed by the serious deliberations and the tremendous accomplishments of our State Board of Censors. We owe a great debt to Dr. E. V. Caldwell and the members of the Board for their untiring devotion and loyal service to the state.

The meetings of the Committee on Medical Service and Public Relations under the leadership of Dr. J. O. Finney and Mr. W. A. Dozier, Jr. have been both inspiring and educational. I wish to commend each member of this vital Committee for the fine service rendered.

My duties have been made much easier because of the Standing and Special Committees whose reports you have just heard or will read in the Transactions. I have had full cooperation from the members whom I have appointed to serve on these committees and am deeply grateful for their accomplishments during the last year.

I wish to call to your special attention the Committee on the American Medical Education Foundation Fund of which Dr. Henry G. Hodo, Jr. is Chairman. He and his Committee have moved a long way forward in stimulating the interest of our members in this worthy cause. The medical profession and industry as a whole are responding generously to this Foundation. I hope the physicians of Alabama will do even better this year than they have in the past. This opportunity offers a fine chance for us to repay,

in a measure, our debt to our medical schools. Each year the Medical College of Alabama is receiving substantial sums of money from the A. M. E. F.

It has been a pleasure to work with Dr. D. G. Gill, our able State Health Officer, during the past year. I marvel at how he finds time to accomplish the many things he does. I wish to thank him for countless courtesies shown me and for the great help he has been.

In reviewing the past Transactions of our Association, I find I am not the only one who has leaned heavily on our Secretary, Dr. Douglas L. Cannon. He has always been available and has given freely of his counsel and advice. While we regret that we no longer have him as our Deputy State Health Officer, we are extremely fortunate in having him continue to serve as our efficient Secretary-Treasurer and as Editor-in-Chief of our State Medical Journal. I wish to take this opportunity to thank him for his invaluable aid.

A pleasant duty of your President has been the appointment of Dr. E. Bryce Robinson, Jr. as Delegate and Dr. B. W. McNease as Alternate Delegate to the American Medical Association. We are most fortunate in being so ably represented in the House of Delegates of the A. M. A. by Drs. J. Paul Jones and Robinson, and their alternates. Their loyalty and devotion to duty is deeply appreciated by the physicians of Alabama.

Our Vice-Presidents have rendered outstanding service in their respective Divisions. It was my pleasure to attend the annual meetings of the Northeastern Division in Gadsden and the Northwestern Division in Tuscaloosa. It was with much regret that I was unable to attend the meetings of the Southeastern and Southwestern Divisions. I was privileged to attend several of our County Medical Society meetings over the state during the past year. I wish especially to commend Dr. H. E. Simon, Dr. M. Vaun Adams, Dr. Ruby E. L. Tyler, and Dr. A. E. Thomas for their outstanding service to organized medicine as Presidents respectively of the Jefferson County Medical Society, the Medical Society of Mobile County, the Tuscaloosa County Medical Society, and the Montgomery County Medical Society. I only wish time had permitted me to visit each of our County Medical Societies during my term of office.

The Woman's Auxiliary to the Medical Association of the State of Alabama under the stimulating leadership of Mrs. John M. Chenault deserves the plaudits and congratulations of all the physicians of Alabama. I thoroughly enjoyed meeting with the Auxiliary in Decatur last year. Among other outstanding services they are rendering, I am convinced their greatest contribution lies in the field of public relations which is of utmost importance at this time.

Organized medicine is essential to the over-all plan of medical care. Regardless of our particular fields of endeavor, we should all actively support our County Medical Societies, the Divisions and our Association and the American Medical Association. We must work together as a team. Medicine is too large a field for anyone

to attempt to go it alone, thus shutting himself off from his colleagues. In order to move forward, we must pull together. It is true our specialty societies fill a great and important need but we owe first allegiance to our units and to the American Medical Association.

During the last two years I have had an opportunity to observe, first hand, the fine work being done by the American Cancer Society, Alabama Division, under the able leadership of Dr. John Day Peake and his Committee on Cancer Control and Mrs. Lillian G. Meade, Executive Director. The American Cancer Society, the Alabama Heart Association, and many other worthy agencies deserve the support of the medical profession.

We should take more interest in the civic affairs of our state and our communities. We can thus serve to set an example for the public in our support not only professionally but financially.

The Medical College of Alabama is doing a magnificent job in medical education. It is moving forward on a firm foundation. Dr. J. J. Durrett, former Dean and now Consultant to the President (Dr. O. C. Carmichael) for the Medical Center Development will, I believe, bring us up to date on the plans for future developments during this annual session. The Medical Association of the State of Alabama is deeply appreciative of the great contributions Dr. Durrett has made and is making to our Medical College and pledges to Dr. Robert C. Berson, our new Dean and Vice-President for Health Affairs of the University of Alabama, our continued whole-hearted support.

Because I believe it is of real concern to this Association, I wish to comment briefly on fluoridation. As you know, defeat of fluoridation by Birmingham voters occurred despite strong leadership and support from physicians and dentists. The fear and emotions created by a few laymen apparently had more effect upon the public mind than the considered judgment of experts. Since we have an uphill fight it is all the more important that organized medicine continue its efforts to see that new public health measures are intelligently applied. In Alabama we have a special obligation.

The purpose of organized medicine is to promote the art and science of medicine and the betterment of the public health. I am convinced that this purpose is being strongly pursued by the physicians of Alabama. The health of our people was never better than it is at the present time. We will continue to support health legislation which we think is good for the public and will vigorously oppose that which we consider to be detrimental. At the present time we are most fortunate in having an administration in Washington which is opposed to socialized medicine but we cannot afford to relax our fight.

Political, social, and economic factors are at work and have altered the conditions under which medicine is practiced.

The practice of medicine must not be brought

under government or corporate control.

The individual's sense of responsibility for his own health and that of his family must not be dulled or destroyed.

The physician's sense of personal and moral responsibility to his patient, as an individual, must be preserved.

I wish to commend the fine work of the Alabama Academy of General Practice, and I wholeheartedly endorse its insistence that every patient have a family physician. The present-day practice of many patients going to one specialist after another without consulting a family physician should be discouraged.

One method of improving our public relations, I believe, is to set up in some manner prevailing fees for standardized medical and surgical procedures, especially for the low-income groups. The patient should be told as near as possible what an operation will cost.

Dogmatism, arrogance, and smugness have no place in the medical profession. There are so many pitfalls in our profession, even when we apply all of our present-day knowledge. We should be forever humble and vigilant in order to make as few mistakes as possible. Beware of the physician who "knows all the answers" and who does not welcome consultation. I have often thought that most of our problems in public relations would be solved if more physicians practiced the Golden Rule.

One of the most pressing problems facing Alabama today is the lack of an adequate program for the care of indigent patients. As far as I know, only a few of our counties provide funds for such care. I am convinced that every physician in Alabama, who is worthy of his hire, will continue to provide adequate medical care to these patients without thought of pay. The real problem is the provision of funds for the cost of medicines and hospitalization.

We have heard and read much in recent years about what is wrong with the medical profession. We know that much of the criticism is unjustified, but we must continue our efforts to combat this criticism by putting our own house in order. In my opinion, more needs to be said and written about what is right with our profession. After all is said and done, the manner in which we conduct ourselves in taking care of our patients from day to day constitutes our most important public relations.

In spite of all the criticism levelled at our profession, a recent survey conducted by leading research organizations and Universities showed that physicians still enjoy the greatest prestige of any profession or calling.

We have had a harmonious year. No major controversies have arisen. I have no specific recommendation to make.

I have tried to fulfill my duties to the best of my ability and as time would permit.

Thank you again for this honor you have bestowed on me. Always, I shall cherish the memory of having served this great Association as its President.

Scientific Program

Dr. Samuel P. Marshall, Mobile, discussed Lower Urinary Tract Obstruction in the Male Patient.

Congenital Anomalies of the Gastro-Intestinal Tract were dealt with by Dr. Willis J. Potts of the Children's Memorial Hospital, Chicago.

Dr. Thomas S. Boozer, Montgomery, read a paper on Diverticulitis of the Cecum.

Diverticulitis of the Colon was discussed by Dr. Joseph L. Butler, Birmingham.

Afternoon Session, Thursday, April 21st

2:00 P. M.

Dr. Griff Harsh, III, Birmingham, read a paper on the Neurosurgical Management of Pain.

Dr. John A. Bigler of the Children's Memorial Hospital, Chicago, discussed Jaundice in Early Infancy.

A Rational Basis for the Treatment of the Toxemias of Pregnancy was the subject dealt with by Dr. Allan C. Barnes, University Hospitals, Cleveland, Ohio.

Dr. Robert B. Greenblatt, Medical College of Georgia, Augusta, discussed the Use and Abuse of Endocrines in Gynecology.

Current Advances in the Diagnosis and Treatment of Cardiospasm and Hiatal Hernia was the subject of the presentation made to the Association by Dr. Herman J. Moersch of the Mayo Clinic, Rochester.

Dr. Harry J. Till, Montgomery, read a paper entitled Surgical Diseases of the Esophagus.

Miscellaneous Business

Dr. Cummins McCall, Gulfport, President of the Mississippi State Medical Association, was presented; as was Mr. J. E. Gammill, Birmingham, Fraternal Delegate from the Alabama Pharmaceutical Association.

Telegrams were read conveying greetings from the Montgomery Retail Druggists Association and the Alabama Pharmaceutical Association.

Social Events

Durr Drug Company and Price Drug Company entertained the Association and guests at a barbecue at Montgomery Country Club beginning at 5:15 P. M.

Second Day

Friday Morning, April 22nd

9:00 A. M.

Dr. James B. McLester, Birmingham, presented a paper on The Patient's Attitude Toward Disease in Psychosomatic Illness.

Dr. Kenneth Corrigan, Harper Hospital, Detroit, discussed Isotope Techniques Useful in Diagnostic Procedures.

Mr. A. V. Wiebel, President, Tennessee Coal and Iron Division, United States Steel Corporation, Fairfield, Alabama, addressed the Association on the subject Physician Heal Thyself.

The Jerome Cochran Lecture—The Role of Medicine and Doctors in International Relations—was delivered by Dr. Charles W. Mayo of Rochester.

President Donald awarded Certificates of Distinction to the following physicians of Alabama who had been practicing their profession for fifty years.

Benson W. Booth	Edwin G. Little
Edmund R. Cannon	Howard C. Morland
Burwell S. Carpenter	Milton C. Ragsdale
James A. Chapman	Charles E. Rhodes
Kosciusko W. Constantine	Neil E. Sellers
Ezekiel H. Couch	Lovick P. Shell
Marvin Denton	Albert G. Sims
Earle Drennen	Percy B. Skinner
Charles D. Feulner	Samuel D. Suggs
James H. Flowers	William P. Sumners
George L. Gresham	Adrian S. Taylor
Warwick W. Klein	George M. Taylor
	William E. Warren

A posthumous award was made the family of Dr. Nathan C. Denton, recently deceased, who was to have received his Certificate at this meeting.

Miscellaneous Business

The Secretary of the Association announced vacancies as follows in the College of Counsellors:

1st Congressional District—2. J. M. Weldon is to be elevated to Life Counsellor. R. D. Neal's first term of seven years has expired.

2nd Congressional District—1. Robert Parker's first term of seven years has expired.

3rd Congressional District—2. V. J. Thacker is to be elevated to Life Counsellor. Arthur Mazyck's first term of seven years has expired.

5th Congressional District—1. W. H. Riser is to be elevated to Life Counsellor.

6th Congressional District—1. W. J. B. Owings' second term of seven years has expired.

7th Congressional District—2. J. C. Gladney is deceased. M. S. Whiteside's second term of seven years has expired.

8th Congressional District—4. E. M. Chenault and Rayford Hodges are to be elevated to Life Counsellors; the second terms of seven years of J. C. Bragg and A. M. Roan have expired.

9th Congressional District—4. R. E. Cloud's second term of seven years has expired. The first terms of seven years of W. S. Littlejohn and E. Bryce Robinson have expired. J. Ralph Morgan is changing his place of residence.

Counsellors and Delegates from these Congressional Districts met at 12:15 P. M. on this day for the purpose of making nominations to fill the vacancies.

* * *

Dr. E. V. Caldwell presented to Dr. Cannon in behalf of the Association a silver tray for devoted service.

Dr. Ross McIntire, Director, International College of Surgeons was presented; as was Mr. Roy Payne, President, Alabama Pharmaceutical Association.

Afternoon Session

Friday, April 22nd

2:00 P. M.

Dr. Wood S. Herren, Birmingham, presented a paper on the Medical Treatment of Hypertension.

Dr. Leon V. McVay, Jr., Mobile, read a

paper entitled Myocardial Infarction in Younger Age Groups.

Dr. Julian Howell, Selma, discussed the Use of Digitalis.

The Management of Digitalis Intoxication was dealt with by Dr. Charles E. Porter, Lloyd Noland Hospital, Fairfield.

Dr. David Henry Poer, Atlanta, discussed The Surgical Management of Chronic Thyroiditis (Hashimoto's Disease).

Dr. J. J. Durrett, Birmingham, consultant to the President of the University of Alabama for the Medical Center Development, had Medical Center Development for the subject of his presentation before the Association.

The scientific program was concluded with a paper on Bone Tumors by Drs. John D. Sherrill, R. J. W. Hobbs and Robert O. Denton of Birmingham.

Social Events

The Montgomery County Medical Society entertained the Association and guests at a reception and dance in the Blue and Gray Room from 8:00 P. M. to midnight.

(To be concluded)

THE ASSOCIATION FORUM

(Under this heading will appear, from time to time, as occasion may arise, contributions having a direct bearing on the general policies, functions and interests of the Association. Articles submitted should be of an impersonal nature.)

PROPOSED CONSTITUTIONAL AMENDMENTS

W. A. Dozier, Jr.
Director of Public Relations

There are two proposed constitutional amendments to our federal Constitution which should be made known to and considered by all thoughtful people. You have, during the past year, been apprised of the Bricker proposal. You know how near it came to passage by the Senate last year. Senator Bricker has reintroduced his proposal. Since other articles have been written in this Journal on this subject, no attempt will be made at present to elucidate further than to say that the proposed amendment would circumscribe the effect of treaties.

The other proposal is Senate Joint Resolution 2, introduced by Senator Bridges of New Hampshire and Senator Byrd of Vir-

ginia. This resolution proposes an amendment to the Constitution of the United States which would limit congressional appropriations to an amount no greater than estimated federal revenues, except in time of war declared by Congress or when the United States is engaged in open hostility against an external enemy.

The proposal by Senators Bridges and Byrd is a bipartisan one. It provides, in brief, that the President, at the opening of each session of Congress, shall submit a budget setting forth estimates of expenditures and revenue receipts, and expenditures shall not exceed revenues under then existing tax laws; if Congress enacts appropriations which, in combination with any deficit carried over from the preceding year, shall exceed revenue estimates, then it shall lay additional taxes to cover the deficit. Section 4 provides that neither the

House nor Senate may adjourn until estimated revenue and approved appropriations, plus any previous deficit, are in balance. Other sections provide that the amendment would be inoperative when the United States is engaged in war declared by Congress, or in open hostilities against an external enemy.

Mr. Paul A. Redmond, President of the Southern States Industrial Council, said in that Council's *Bulletin* of August 1, 1954, "It appears to us that the proposal of Senators Bridges and Byrd is the most realistic approach we have seen to this important question. It is obvious that so long as we can spend and pass our debts on to future generations there will be no end to the deficits that have been a part of our Federal financing for twenty-one out of the last twenty-five years. Notwithstanding efforts made by the Administration and the Congress to reduce current spending, there is apparently no end. The deficit for the fiscal year ending last June 30th was approximately \$3 billion, and an examination of appropriations already approved for 1955, and the tax reductions that the Congress has seen fit to enact—reducing tax receipts for 1955 by a billion and a half dollars, indicate the deficit for the present fiscal year will exceed that for 1954.

"This amendment, if adopted, would stop deficit spending; it would stop a lot of log-rolling, and pork-barrels would lose their flavor. It can hardly be denied that a major part of the deficit spending—in peacetime—is unessential—and if the people realize that for every such dollar spent they have to reach into their own pockets this spending will stop. The amendment might prevent additional tax relief at this time. We like tax relief as well as any one but tax relief that depends for its granting on a charge against the future welfare of our children and their children is a snare and delusion."

There are many people in America who do not agree with the Keynesian theory. Many cannot agree that we need not worry about deficit spending because the debt is only to ourselves. Dr. Frank G. Dickinson of the American Medical Association's Bureau of Medical Economic Research has pointed out very graphically that our present method of financing many government activities is riding piggy-back to the grave on the younger generations. Senator Byrd

has said that if we don't get a balanced budget during this administration we never will get one.

All of these thoughts and ideas need careful consideration; and throughout your thinking it is suggested you remember that basic, second-grade arithmetic taught you that two plus two equal four—not five.

Anemia in Pregnancy—About 80 per cent of normal patients manifest decreases in hematologic values to a variable degree during pregnancy.

A physiologic anemia does not occur in pregnancy. Minimal or moderate decreases in the hemoglobin are usually the results of an iron deficiency.

Associated with any decrease in hemoglobin there is a decrease in the serum iron and elevation of the erythrocyte protoporphyrin. These have been shown to indicate the existence of iron deficiency. A hemoglobin of 12 grams per cent has been found to be an approximate minimal normal hemoglobin for the pregnant state. Only 20 per cent of pregnant patients not receiving supplemental iron maintained their hemoglobin above 12 grams per cent.

Approximately 80 per cent of pregnant women maintained or improved their hemoglobin values when given an iron supplement with their diet.

Every pregnant woman should receive iron during pregnancy. A minimum of 90 days has been found to constitute an adequate trial. Iron should preferably be administered late in pregnancy when the iron demands are the greatest.

Ninety per cent of pregnant women maintained or improved their hemoglobin values when given a combination of iron and cobalt (Roncovite). A significantly higher proportion of patients receiving iron and cobalt delivered with a hemoglobin above 13 grams per cent when this series was compared with the iron treated series.

No toxic manifestations associated with its use have been observed.—Holly—*Obstetrics & Gynecology* 5:1 (April) 1955.

NEXT ANNUAL MEETING

BIRMINGHAM

APRIL 19, 20, 21, 1956

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THE ROLE OF MEDICINE AND DOCTORS IN INTERNATIONAL RELATIONS

THE 1955 JEROME COCHRAN LECTURE

CHARLES W. MAYO, M. D.

Section of Surgery

Mayo Clinic and Mayo Foundation

Rochester, Minnesota

My participation in this annual meeting of the Medical Association of the State of Alabama to deliver the Jerome Cochran Lecture is of particular significance and honor to me because my uncle delivered the lecture in 1917, my father presented it in 1922, and the lectureship itself was established in 1898, the year of my birth.

It is only just and right that the name of Dr. Jerome Cochran should be brought to the foreground annually so that those who have known of him and his works may be reminded of the professional debt owed him, and so that those who are entering the practice of medicine and may not have heard of him or may have paid little heed to his name may be introduced to this great man's works and accomplishments, which extended not only throughout the state of Alabama but also the nation.

At the meeting of the Southern Medical Association in Baltimore in 1936, the Chairman, Douglas L. Cannon of Montgomery, in the Section on Public Health, characterized Dr. Jerome Cochran as "The South's first gift to public health." The bringing together of your county medical societies, the development of this, your state organization, and the groundwork for your unique State Board of Health are among the glowing achievements of this eminent gentle-

Delivered before the Association in annual session, Montgomery, April 22, 1955.

The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

man. It is because a man's measure of success is based on the quality and quantity of his contributions to the welfare of his fellow man that you and all of us pay tribute to his memory.

In 1917, my uncle, Dr. W. J. Mayo, spoke in Montgomery on "The Importance of Infection in the Three Plagues," syphilis, tuberculosis and cancer. Think of the progress that has taken place in our country in the 38 years since then, in the apprehension and therapy of these diseases. Syphilis, or at least its sequelae, is hard to come upon for teaching purposes in our medical schools; tuberculosis, although still a pressing problem in American medicine, has lost the terror formerly attendant on its diagnosis; and cancer, as a result of the educational program directed toward early diagnosis and early treatment, also has given much ground in the fields of mortality, morbidity and prognosis. Consider what the antibiotics and chemotherapeutic agents have accomplished in sepsis; its control now is so miraculous, as compared with that of 1917, that it needs no elaboration.

In 1922, my father, Dr. C. H. Mayo, at your annual meeting in Birmingham, spent some time in eulogizing Jerome Cochran and suggested that a statue or bust of this man be made to give visual evidence of the esteem in which he was held. My father felt that medical men seldom are so honored and that there was sufficient reason for the medical profession, as well as the lay public, to have a constant reminder of Jerome

Cochran's worth.

My father spoke on the thyroid gland and its diseases. He performed more than 17,000 operations for goiter during his active surgical years. Think of what has happened as the result of the use of iodine and, now, radioactive iodine in this field of human disease. The then-common exophthalmic goiter is a rarity today, as is toxic goiter. The time when a single surgeon performed 20 or more such operations in one operative session has gone, never to return.

Evidences of progress are apparent in every field of medicine and surgery. The practical products of research have benefited not only the individual patient but also great groups of patients. Thus we step into the realm of public health and my subject, "The Role of Doctors and Medicine in International Relations," reflects one of Jerome Cochran's principal interests, the health of people.

The broad purposes of the departments of public health are to eliminate, whenever and wherever possible, the causes of group illnesses, and, when sickness or conditions which are a hazard to the health of groups of people do develop, to limit or contain it or them, by preventing spread during the process of correction. It is the constant, continuing and ever-expanding efforts of public health officials, by supervision and action, that have made us a nation with a most enviable record of health. It is of interest to note that the United States Public Health Service has participated in health programs in more than 20 countries of the Near and Far East, and in Southern Europe, as well as in 18 countries of South America. True, the primary purpose is our own protection, but in helping ourselves we help them.

While we justly may take pride in our municipal, county, state and national health standards and accomplishments, let us consider the achievement of health as an instrument of international good will or public relations.

I doubt that we ever have been, in word or deed, the greatest nation that ever existed, in terms of international relations, but I do not doubt that it is possible for us to be the greatest. I believe that we, as a nation, are approaching a consciousness that is basic to lasting trust and friendship of peoples. Ours is not a paternalistic, or superior, attitude of helpfulness; it is not

our purpose to fashion others by force to our pattern; rather, we recognize the rights of others eventually to achieve freedom, social order and the good things of life under their own legal regulation.

To the isolationist, the reaching out of a helpful hand beyond the borders of our country is an impractical, ultra-idealistic philosophy, not to be put into practice. He is of the opinion that we have enough problems of our own, that we should be self-contained and, in short, that we should not worry or concern ourselves with others. Isolationism is incompatible with internationalism, whereas in the broadest sense nationalism is not. We must not consider the terms "isolationism" and "nationalism" as being synonymous. Our daily contacts with the material things of life are mute evidences of international interdependence.

If any country has learned the hard way that it is impossible to buy friendship or to be truly helpful with money alone, we should have learned it. We seem to have to relearn that lesson after each war. It is high time that we recognize an old, but nationally new, concept, namely, that allies and friends who can be counted on are made by helping others to help themselves.

As a people, we Americans are an impatient lot. This is a good quality as well as a fault. We are impatient with ourselves and impatient with others. We want accomplishments *now, today*, not tomorrow or the next day. Certainly, we seldom think in terms of accomplishment in the next generation; it must be during our term of office, or at the very least during our lifetime. We work hard and we expect everyone else to work hard.

The present concept then is that when we educate people to help themselves, this is, in fact, an investment that pays dividends, both economic and social, it benefits the needy nation and, if we must look at it selfishly, it eliminates a drain on us. Thus, when it comes to rebuilding a nation after the devastation of war, or assisting a backward country to become a self-governing nation, the problem first is to train teachers in three principal fields: (1) in public health which includes medicine and sanitation, (2) in agriculture, and (3) in engineering.

In a quiet way, our country and several of our large foundations have been practic-

ing this method of approach to the problem of aid to other and needy nations for years. The Ford Foundation spent 28 per cent of its 1954 budget for projects outside the United States, and the great deeds for human welfare that have been, and are being, accomplished by such other organizations as the Carnegie and Rockefeller Foundations in a well-thought-out and practical manner are well known.

I had the privilege, late in 1951, to observe some examples of the things of which I speak—examples that left a lasting impression on me. I shall mention two: one concerns a project sponsored by the Rockefeller Foundation and the other is sponsored by our country, through a Navy unit known as NAMRU No. 3; both were carried out in Egypt.

The first concerned a practical demonstration of what sanitation can accomplish. An entire town was involved in the demonstration and another town of equivalent size was used as a control. Among other things, it had to do with the question of where and how deep a well should be, and of the proper placement and construction of outhouses.

The second, the project of NAMRU No. 3, which stands for Navy Medical Research Unit No. 3, was carried out in Cairo and was concerned with the study of parasitic diseases and their carriers. On the staff of this unit were some 14 professors from various universities and colleges of our country and they were training almost a hundred Egyptians in the methods of control of parasitic diseases that are a scourge in their country.

On good authority, I was informed that, because of such assistance, action favorable to the United States was taken many times in the Egyptian Parliament. What better form of international relationship could there be?

Another fine example of what the United States is now accomplishing along this line in the fields of medicine, public health, agriculture and engineering is the contracts with our universities, on which will fall the responsibility of teaching native teachers in certain countries, such as South Korea. Efforts are being made so that eventually these countries may establish an educational program more in keeping with modern times. I am aware of this work, particularly because the University of Minne-

sota, among others, is concerned with all these fields of endeavor in South Korea through the Foreign Operations Administration, known as FOA.

There is no profession in which advancement in its science and art, under the free enterprise system, will pay higher dividends in the cause of international good will and peace than in medicine. The wide influence of the good physician should not be taken lightly, because the confidence, respect and trust placed in him by his patients assure him a unique relationship at once spiritual and physical.

In this expanding effort to promote humanitarian science throughout the world, countless fellowships, funds and awards are being established for graduate study in medical fields through various foundations and institutions. On file in the headquarters of the Association of American Medical Colleges in Chicago is a list of more than 200 such organizations. Among others, the Fulbright Fund is worthy of some comment. It is derived from sales of surplus war material belonging to the United States in foreign countries. The proceeds are made available in the form of scholarships to students going to these countries and to those coming from them; these scholarships are granted on a competitive basis. Another fund is provided by the Smith-Mundt Act, to enable leaders from other countries to come to the United States.

Although there have been problems concerning the undergraduate and graduate education of the foreign student in this country, they have been rather well solved with time and experience. The education of the foreign student in this country is an important program and, although it must be watched carefully, in general most graduate and postgraduate institutions are bearing their fair share of the burden. Among the almost 600 fellows in the Mayo Foundation, we have more than 80 foreign students on the postgraduate level.

UNITED NATIONS AND THE WORLD HEALTH ORGANIZATION (WHO)

The United Nations, presently made up of 60 nations, is an organization with which many, and I hope most, of you are familiar. It is now in its tenth year of existence and because of this decade anniversary, and the multiplicity of problems to come before it, this is a crucial year.

Each of the 60 countries represented has an Ambassador to the United Nations—an

ambassador because he represents a sovereign power, not a political entity. The United States Mission, like the other missions, does not have headquarters in the United Nations Building. Our headquarters are at 2 Park Avenue in New York City. The General Assembly begins each fall and lasts for about 3 months or until the items on the agenda have been considered. Because of the number and variety of subjects to be dealt with, we have 10 delegates. The Secretary of State and the Ambassador are permanent members of the Mission; then two senators or two congressmen, who serve in alternate years, and either a governor or an ex-governor of a state make up the first five delegates. The next five delegates are selected from private citizens. All delegates, except the first two, are appointed by the President for one term. It was my privilege to serve with the Eighth General Assembly.

To understand the United Nations one must know what it can and cannot do, according to the Charter which controls its actions. The United Nations is not a panacea for all ills of this world of ours, nor is it the sole solution for all the international crises which arise. It is, however, dedicated as a body to the implementation of peace, to the avoidance of war, and it is unalterably opposed to aggression. With these objectives, no one in his right mind could take exception. It does have country-wide, destructive critics but they are in the minority. Those who know it best recognize it for what it is, namely, an instrument for peace. Winston Churchill put it well when he said it was not a one-way ticket to heaven but at least it was in the right direction.

A recent meeting in Washington was sponsored by a nongovernmental organization, the American Association for the United Nations. This organization, of which I now have the honor to be president, is devoted to the education of our people about the United Nations, it tries to direct and assemble public opinion about the United Nations and it informs our government through considered resolutions. Some 90 other nongovernmental organizations interested in the United Nations also were at the meeting. One of the important resolutions passed had to do with the conviction that more and more of our governmental problems concerned with foreign policy and relations should be directed through

the United Nations, on the basis that the surest method to make it a sterile and ineffective instrument for peace and understanding is to bypass it.

The United Nations is interested in all factors that will promote peace and, naturally, one of these concerns the health of peoples. The majority of medical problems of an international character, however, are directed to and dealt with by the one of the 11 organizations that is not a part of, but is associated with, the United Nations, namely, the World Health Organization (WHO). Each of the 11 bodies has its own president and its own laws which govern it. The line of official communication by our Ambassador to WHO, for instance, is not through the United Nations but through our State Department. The reason for this is that all the 60 nations of the United Nations are not members of WHO; for example, up to the present, the Soviet Union and the other four Communist countries are not. Also there are some nations which are not members of the United Nations and are members of WHO. Thus not 60, but some 70, countries belong to the World Health Organization. WHO has proved that nations can work together on common problems without losing any of their national sovereignty.

Considering the interest of the American physician in world health work and in WHO, I believe that he, as well as the layman, should be concerned with three points which have been pointed out in many lands through the World Health Organization, and are as follows: 1. Sickness makes men poor. 2. Poverty makes men sick. 3. Healthy people can end poverty. The physician is familiar with this situation from his contact with individual patients; therefore, he can readily appreciate how such a situation applies to the larger social groups and can understand the international significance of this approach to foreign relations.

No greater dividends could be derived from the money spent in this work than that derived by those directly benefited in better health and living conditions, or by us, the indirect beneficiaries, in the lessening of our foreign economic responsibilities and in the promotion of good will. The budget for this work in 1954 was a total of \$8,487,700, of which our share was \$2,800,000. Because of the evidences of benefit

and of continuing need for some expansion, it is hoped that the budget can be reasonably increased.

DR. JONAS SALK

We physicians take great pride in the proved contribution to our national medical achievements that was announced on April 12 of this year, in the form of an effective, safe polio vaccine. While we recognize the stepping stones which led to his discovery, great honor and acclaim are due Dr. Jonas Salk. His may well be the greatest contribution to medicine in our generation. I suggest to you the importance of this polio vaccine in terms of an international contri-

bution to the welfare of all mankind as soon as the supply can fill the demand. The effect of practical and productive research of this nature transcends and cuts across all national boundaries.

In bringing this Jerome Cochran lecture to a close, may I again pay my homage to him in whose honor it has been named. May his name and accomplishments continue to be revered and may we who follow in the profession of medicine continue to think of the alleviation of individual illnesses, and also of national and international health in terms of the interrelated benefits to all.

PHYSICIAN, HEAL THYSELF!

ARTHUR V. WIEBEL, President

Tennessee Coal & Iron Division

United States Steel Corporation

Fairfield, Alabama

I am indeed flattered. This is the first time I have ever been called in for consultation by a group of eminent physicians and surgeons. So that I might be prepared for this occasion, I borrowed a medical dictionary from my good friend, Bryce Robinson. Ladies and gentlemen, it gives me great pleasure to report that I now know the difference between a diagnosis, a prognosis and acidosis. So, shall we get down to an examination of the case?

Seriously, one might wonder—at first thought—about what a steel man might have to say that could be of value to a medical group. We represent two highly specialized fields which would appear, on the surface, to have very little in common.

Yet there is much in common between you and me, between medicine and business. A little thought will disclose that we have many mutual aims in life—and many mutual problems. And it may well be that the very differences in our types of work can help us to help one another in reaching our common objectives. Perhaps the observations of a layman can serve to call your attention to some facets of your profession which you may not have noticed. Maybe the perspective of an outsider can give you a new slant on some old problems. You know, we are all likely to move so deeply into our own professional forests

that we cannot, at times, see the woods for the trees. It sometimes takes the man standing on the outside to get the overall view, even though he may not know an oak from an elm.

Today the world has grown so crowded and complex, the needs of the people have multiplied so many times, the jobs and professions whereby these needs are met have become so specialized and diverse, that organization has become a necessity. The creative activities of the individual must be fitted together with those of his contemporaries, much as we put together the parts of a jigsaw puzzle, to form an integrated and effective unit of endeavor. Efforts must be directed and meshed together so as to reinforce rather than to hinder the drive to mutual goals. Thereby each of us extends the scope of his activities beyond his own geographic and professional zone of activities. By combining our talents, our ideas and our knowledge, each contributes to the development and the accomplishments of others.

For that reason, we have organized ourselves into representative groups, such, for instance, as the American Iron and Steel Institute, the American Chemical Society—yes, and by all means the American Medical Association and its affiliates. Through these organizations, we pool our knowledge, set and maintain standards, and assail and overcome as teams the obstacles to progress

that the individual cannot surmount. The American Iron and Steel Institute has as its specific goal the production and marketing of more and better steel, the development of more efficient steel producers. The American Medical Association has as its major function the development of improved medicine and medical techniques, as well as the development of better doctors.

How different in specifics are these two groups, and yet how similar they are in their general aims. For if we look beyond the stethoscope and the blast furnace, what we see is people, the ultimate beneficiaries of all our work. The doctor safeguards personal health. The businessman works in the interest of economic health. But the final aim of both is the well-being of mankind.

Our individual and organizational obligations, however, go beyond the technical side of our jobs. In seeking to represent our professions before the general public, we have come more and more to acknowledge a responsibility toward the general good. We have learned that much more is involved than the matter of making good steel or arriving at an accurate medical diagnosis. Therein lies the common goal.

Possibly no organization is better known nor more highly respected by those who are aware of its work than is the American Medical Association and its state and county affiliates. The work of these groups, although it does not always receive the public recognition it deserves, has been our most vital force in implementing those constitutional guarantees to life and the pursuit of happiness. Foremost, of course, is the work of the Association in fostering the advancement of medical science. It is not happenstance that medicine has advanced faster during the past few decades than almost any other science. But of equal importance is the restraining influence it exerts. Few people realize how important it is to curb overenthusiasm and to keep doctors and scientists from rushing hastily into new treatments and techniques before they have been thoroughly tested. It is chiefly through the AMA that medicine in this nation is kept moving forward at a fast but deliberate pace.

Another vital function is the self-regulation your organization conducts. The public can gain immeasurably from your achievements in policing your own ranks

—in disciplining the lax, weeding out the incompetents, and exposing unethical practitioners. Today, the doctor is usually the most highly respected member of his community, because his neighbors are aware that he must rank at the top in ability and integrity as long as he remains within the profession.

Those, of course, are functions you perform within the organization. We cannot overlook the highly beneficial nature of your efforts to place medicine in its proper social role. Doctors are constantly supplied with appropriate and timely information on how best to encourage public support for themselves and for the medical profession. Consequently, the public today is both well informed and articulate about many phases of medicine and medical treatment. This results in large measure from your own accomplishments in bringing the story of medicine to the public through newspapers and magazines, radio and television. But, after all, in so doing you were really meeting a public demand for just such information. Your work in exposing to the withering light of publicity the potential damage that lies in misleading advertising about drugs, the sale of fake cure-alls, and the dishonest practices of quacks, has alleviated much suffering, and has protected the public's pocketbook. Certainly you are to be praised for the successful stand you have taken against socialized medicine. You have built and, more importantly, you have earned respect for yourselves and for the work you do.

Those are items which are in your favor, as doctors and as members of this Association. But I should be neither honest nor fair to you if I merely contented myself with listing your achievements. You know those better than I, and you did not invite me here today to serve as official back-patter. Thus, in candor, I feel it is necessary to say that I do not believe you have fulfilled all of your individual and organizational responsibilities. Like most of us, you have concentrated on the immediate job, you have dealt at length with the specifics, but you have tended to neglect some of your overall duties as citizens and members of society. You have paid careful attention to the oaks and elms of medicine, but you have to a degree ignored the forest of general human well-being.

It is not enough to provide man with a

healthy body. It is not enough to furnish him with such material things as the manufacturer can produce. He, as a creature of God, is entitled to more intangible gifts—those of freedom, of the right to live and to develop according to his own conscience and in keeping with his own abilities. He has a right to secure and retain the individual dignity which can come only through standing on his own two feet, making his own decisions and accepting the responsibility for making his own way in the world. And those are the very things which today are most gravely in need of our careful consideration.

Yet the medical profession, as have so many of the various segments of our society, has chosen to devote its energies almost entirely to those matters of policy by which it is directly and immediately affected. Certainly, you have fought the symptom of socialized medicine, but what have you done about the cancer of collectivist thinking, which is responsible for the symptom? How can any of us fight anything but a losing battle, if each combats only the symptoms which bother him at the moment, without attempting to treat the basic disease? Are we not needlessly wasting our strength if we concern ourselves only with politically controlled medicine and government controlled operations and government controlled markets? No, ladies and gentlemen, we must make more than a superficial diagnosis, and we must give more than token treatment. Before any of us can expect relief, we must apply therapy at the very source of the political and social evils that beset us.

"But why pick on the doctor?" you may ask. Heaven knows, he has about all he can manage in waging a 24-hour-a-day battle against physical disease. It is admitted that perhaps there are others who have more time to worry about encroaching socialism. It could be that there are others whose stake in democracy is more immediately apparent than your own—although that is open to serious doubt. Maybe there are others better qualified by training to wrestle with the problems of statesmanship.

Well, here are a few very substantial reasons why politics is *your* business. First, you have the responsibility of leadership. This responsibility is yours because of the great wisdom and native intelligence which

God has granted you. Only the man or woman with great intellect becomes a doctor. It is my firm belief that the man who does not use the talents bestowed upon him is breaking faith with his Creator.

Second, you are, individually and as a group, in an enviable position with regard to the influence you can bring to bear in matters of government. You, as individual doctors, have an opportunity that is granted to few of us in that, through your work, you come in intimate personal contact every day with people from all walks of life. You make their health problems your business. You are concerned with them, not as the public, but as individual people. They depend upon you. Thus you build up a relationship which can hardly be constructed in any other way. Yours is a wonderful opportunity to give spiritual as well as physical ministrations. Who, then, is better qualified than the trusted family doctor, a man of known integrity, to counteract the falsely humanitarian philosophy of those who preach the welfare state approach to human betterment?

The matter of obtaining and keeping democratic, competent government would not be so complex and difficult if each individual undertook his full obligations as a citizen. But unfortunately, entirely too many are willing to leave these responsibilities to others. So, those of us who, in good conscience, feel obligated to work toward this goal must strive all the harder for it. We must take public opinion, which is in so many respects without expression, and give it direction. This must be done not in the sense of pulling the public along by the scruff of the neck but as the spearhead of forceful and vocal representation of the best interests of all Americans.

In many respects, we have come to a sad state of political affairs because the real thinkers and the real doers in our midst have not made themselves heard. Through inadequacy of expression, through neglect, or both, those best qualified by intelligence and ability have allowed the thinking of many citizens to be captured by the rabble-rousers who appeal to the emotions rather than to the intellect. There are places where governmental destinies presently repose in the control of men who were swept into power through appeals to the very basest qualities of human nature: the qualities of personal greed, of aversion to

responsibility, of suspicion of success, and of the willingness to surrender, for small reward, the right to dignified and honest government.

The people who elect such men to office do so because they have not been taught to think. Any student of junior high school arithmetic can tell you that you cannot spend money recklessly on politically attractive projects without first obtaining that money from the people, either through economically ruinous taxation or by mortgaging the very future of the land. Any high school civics student can tell you that you cannot spend money on the unproductive without taking from the productive. And any student of human nature is going to tell you that those who act as intermediaries—taking from some in order to give to others—are going to keep a fair-sized share of the spoils for themselves.

And yet, too many American voters never seem to take these very obvious facts into consideration. Because they have not been taught to reason, they, like the donkey, can see only the carrot of government subsidy in front of their noses. They fail to notice the stick of government control from which it is suspended. Thus they are led, blissfully and blindly, into the surrender of their right to control their own destinies.

Is it then not your duty as an Association with great prestige and influence to lend your support to the struggle against the tyranny that threatens our way of life? Do you not have the obligation, as well as the right, to make your voice for freedom heard above the clamor for security at any price?

As individuals, do you not owe it to yourselves and to your patients to point out the dangers that lie in collectivist thinking? Can you not see that, as a key member of society, as a true humanitarian, you should help to heal an ailing society as well as a diseased body?

I would remind you of this basic fact: Democracy is not a private affair. Either we all enjoy it or we shall suffer the loss of individual freedom. If democracy is lost for some, it is lost for all of us. If you and I would preserve it for ourselves, we must help to maintain it for everybody.

The time has passed when we could merely sympathize with others over the unholy mess so often caused by political irresponsibility. We can no longer take as a matter of fact the obvious inefficiency or

blatant corruption of bad government. It is up to us—to each of you in medicine and to each of us in business—to work for freedom and sound political policy. This is not a job for others with "more time" or with "more to gain" or with "a better knack for doing that sort of thing." It is our responsibility, and we cannot afford to shirk it.

Ladies and gentlemen, my diagnosis is that the medical profession, along with many other segments of our society, suffers from a malignancy of political disinterest. My prognosis is that unless therapy is properly and effectively applied, we may eventually find that our liberty has been amputated. My prescription is simple. It is that proverb found in the fourth chapter of Saint Luke—"Physician, heal thyself: whatsoever we have heard done in Capernaum, do also here in thy country."

"Physician, Heal Thyself!"

The Injured Ankle—For fractures of the ankle without displacement simply immobilize them in plaster until healing is complete. One should attempt a closed reduction under a general or spinal anesthetic if there is displacement. Complete relaxation is essential. The patient is placed in a supine position and the entire extremity is allowed to hang over the table at a right angle in order to relax the posterior calf muscles. The typical displacement in a bimalleolar or Pott's fracture is a posterior and lateral displacement of the ankle and foot. This fracture is reduced by displacing the foot anteriorly to correct the posterior displacement and then shifting it toward the medial side by applying two-point pressure, one point being at the lower tibia just above the medial malleolus and the other point on the lateral side of the ankle and foot. The extremity is immobilized in a short leg cast, being careful to apply sufficient padding over the pressure points medially and laterally. It is molded as the plaster sets. A slightly inverted position of the foot may be used to an advantage to maintain the reduction. However, this is not always necessary. If the post-reductive radiographs disclose a satisfactory reduction of the fracture, the patient is spared an open reduction. If the reduction is unsatisfactory, then an open reduction should be done and the medial malleolus fixed with a single stainless steel screw. The initial plaster is changed at five weeks, and a short leg walking cast applied. Weight bearing is allowed, and this is removed at 10 weeks post-fracture, and active rehabilitation and exercises instituted. As soon as the residual soreness and stiffness have disappeared, weight bearing is allowed.

Many of these injuries can be treated by closed methods. However, if this is not possible, an open procedure should be done.—*Lovell and King, J. M. A. Georgia, May 1955.*

The Neurotic Patient—The fundamental basis of psychotherapy consists in the doctor-patient relationship. The physician must be warm, understanding, and accepting, without becoming sentimental or identifying himself too closely with the patient, and without going to the other extreme of being punitive or judgmental. It is on this basis that one can work effectively in altering a situation for the better or in altering the individual. By means of a sound relationship it is possible to give the patient support, reassurance and encouragement, and to go on from there to provide a certain amount of insight into the origin of conflicts and of symptoms.

As a general rule it is wise not to talk too much. The patient is anxious to tell about himself. It is a rare patient who can follow any but the simplest discussion of physiology and symptom formation. Most will be confused or draw wrong conclusions from too much explanation or the mention of terms such as pylorospasm or colitis. It is unwise to promise too much or to make premature statements that the patient will be all right, for the average patient experiences no immediate striking improvement and may well wonder how you can make such statements. It is unwise to attempt to interpret conflicts for the patient unless you are quite sure he is ready for it. In general it is much safer to let the patient talk until the origin of the conflicts is self-evident. It is always unwise for one without special psychiatric training to delve into unconscious material or conflict.

One of the current branches of psychotherapy is known as non-directive counselling. This, as the name implies, consists of allowing the patient to talk with very little direction, simply keeping him on the track, and as the patient verbalizes his problems and emotions he is able to deal effectively with them.

You have had the experience of helping many patients without becoming very psychological. I have a middle-aged, mildly hypertensive woman who has depressions, headaches, consciousness of heart action and insomnia. Every few weeks she comes by the office for about half an hour. She talks while I nod my head attentively. She tells me that for some months now she has had none of her depressions or heart sensations, and that for a two week period she had no headaches. She continues to be full of symptoms, inhibitions, tensions and conflicts, many of which are on a superficial level, yet she is running her household and taking an active part in her church work. You might say that I do nothing for her, but she does obtain benefit from an opportunity to talk to someone who is not critical or judgmental and whose only interest is in helping her.—Thompson, West Virginia M. J., May 1955.

Reactions to Antibiotics—Despite the unquestionable effectiveness of the antibiotics, their use has been curtailed by the many toxic reactions that have ensued. We have all seen such reactions. Penicillin may cause a black tongue, a glossitis or a stomatitis, and various degrees of urticaria. More serious are the anaphylactic and allergic reactions. These distressing and alarm-

ing sequelae may develop after one or many administrations. They occur immediately, or in two or three weeks after its use has been discontinued. True Herxheimer reactions may occur.

The toxicity of the broad-spectrum antibiotics is usually manifested by gastric symptoms, nausea, at times vomiting, and diarrhea. The diarrhea and anal or vulvar pruritis are the more frequent and the more severe results of sensitivity. The diarrhea is said to be caused by the bactericidal effect of the antibiotics on the normal flora of the intestinal tract and their replacement by the acid producing yeasts or fungi, especially of the monilia family. Despite the frequent statements that the incidence of these phenomena are only occasional complications, our experience has been to the contrary. In many instances these reactions have been so serious that there has been established colitis and pruritis ani that has persisted or recurred for two or three years afterward.

Specifically, the indictment of Chloromycetin as a cause of aplastic anemia is noteworthy. This was said to occur following the administration of this antibiotic over varying lengths of time. Several fatal cases were reported, one within two days of the first administration of this drug. These dire results might have been anticipated, since Smadel in 1949 had warned that the presence of the nitrobenzene radical in Chloromycetin constituted a "potential danger as a hematopoietic toxin."

Antihistaminics are being used more generally, in fact incorporated with the antibiotic in certain instances, to counteract the sensitivity of the patient to the antibiotic. This therapeutic device is never justified as a routine measure since, in a purulent sinusitis, otitis media or tracheobronchitis, it causes a thickening and increased viscosity of the secretions and thus seriously interferes with the adequate drainage from these foci.

In this vein it may also be said that antibiotics are frequently administered too readily and too early in acute infections. The danger of sensitization of a patient is ever present and must be faced, but with the realization that the end must justify the means. It is a lamentable tragedy to deprive a patient of the benefit of an antibiotic in a subsequent serious illness because he has been sensitized at the time of a simple infection, which would have responded to ordinary therapeutic measures or have been self-limited by the innate resistance of the individual.—McMahon, South. M. J., May 1955.

Gamma Globulin in Herpes Zoster—Five or six patients treated with gamma globulin were relieved of painful symptoms of herpes zoster, also known as shingles, according to a Florida physician.

Dr. I. Irving Weintraub, Gainesville, reported on the cases in a recent Journal of the American Medical Association. Gamma globulin has been used previously in treatment of measles.

Dr. Weintraub said in four of the six patients, a "dramatic relief of pain occurred within the first 24 hours." Skin outbreaks were stopped by the treatment and no further infection was seen.

THE JOURNAL

of the

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GROUP INSURANCE SURVEY

Recently you received a communication from the Committee on Insurance. You were requested to make your desires known; this is in accordance with a recommendation by the Board of Censors which the Association adopted on April 23. If you have not done so, you are urged to take the necessary minute or two to read the letter, check your reaction, and mail the postal card which was supplied.

SPECIAL BULLETIN

1. Al. A. Bama, M. D., Professor of Radiology No. 78,532, at Ohatchee Medical Center, having completed tour of duty at this station 10, May 1955, under the provisions of Commission on Health and Public Welfare, Circular No. 84, 1953, is assigned for duty to Birmingham Medical Center as Chief of Pediatrics Department and is placed on commutation and quarters as prescribed in AR 29-6482, effective from and including 10, May 1955, and to continue while he remains in his present status and at the pleasure of the Commissioner of Health and Welfare.

2. First 15% of present complement, Class III Students, Medical, Birmingham Medical Center, will proceed, on or about 10, May 1955, reporting to C. O., Station Hospital, Juneau, Alaska, for duty as Technicians, Medical, 1st Class, 1987643. "Under authority of Letter Headquarters, 6th Medical District, dated 25, June 1954, AJFIN 400.4."

CAN IT HAPPEN HERE? If the Federal Government is allowed any measure of control over our private medical schools and their professors, it would take very little stretch of the imagination to conceive of the above actually coming to pass. Federal Government control over our medical schools is a possibility unless we continue to subsidize them by the contributions of the doctors of this country. Your contributions to the American Medical Education Foundation Fund have been a major deterrent to Federal Government's meddling with our medical schools. However, the cost of operating a medical school continues from year to year. Your initial contributions have been well used. Now it is time to continue the fight against federal medical control by contributing to the A. M. E. F. Fund again. DON'T LET IT HAPPEN HERE!



FRANK L. CHENAULT
Decatur
President of the Association
1955-1956

TRANSACTIONS OF THE ASSOCIATION

1955 SESSION (Concluded)

Last Day, Saturday, April 23

The Association, sitting as the Board of Health of the State of Alabama, was called to order at 9:00 A. M. by the President, Dr. Joseph M. Donald.

The report of the Board of Censors was rendered by the Chairman, Dr. E. V. Caldwell of Huntsville.

EIGHTY-FIRST ANNUAL REPORT OF THE STATE BOARD OF CENSORS, INCLUDING ITS REPORT AS A STATE BOARD OF MEDICAL EXAMINERS, AND AS A STATE COMMITTEE OF PUBLIC HEALTH

E. V. Caldwell, M. D., Chairman

PART I

The State Board of Censors has the honor to submit to the Association its Eighty-First Annual Report.

THE PRESIDENT'S MESSAGE

The President's Message reveals that he has a fine grasp of the wide variety of problems confronting the Association, and that he has given them deep thought, devoting a great deal of time studying and solving these problems. He commends all the agencies and personnel of the Association for their fine work. Especially does he commend the Vice-Presidents, the Committees, the State Health Officer, the Secretary-Treasurer of our Association, the Woman's Auxiliary, Blue Cross-Blue Shield of Alabama, and the Medical College.

The President discusses the American Medical Education Fund, to which all doctors are asked to contribute.

The Board recommends adoption of the President's Message.

The Message was adopted.

REPORTS OF VICE-PRESIDENTS

Each of the Vice-Presidents reports one regional meeting during the year with excellent programs in every instance but with disappointing attendance. The Board recognizes the difficulty of good attendance at all meetings due to the number of conflicting organizations but believes that they are to the advantage of the Association.

Matters raised for consideration by the Vice-Presidents include the shortage of nurses, insurance, and cooperation with pharmacists. These matters are briefly handled in other com-

mittee reports. The suggestion that Vice-Presidents be sent copies of all county reports and that all changes in facilities, etc., be brought to their attention so that they will be conversant with all matters in their districts is appreciated. Possibly the matter could be handled without duplication of extensive reports by the Secretary advising each Vice-President at intervals of developments in his area, and the Board so recommends.

The Board's recommendation received approval.

REPORT OF SECRETARY-TREASURER

The membership of the Association reached a new high with 1958 physicians associated with organized medicine. Forty-six of our colleagues were removed by death during the past year, including a former President and two counselors. Their memories will long remain vivid with their colleagues. Twenty-six members are to be honored by membership in the Fifty Year Club, and the Board hopes for them many more years of practice.

The finances of the Association are in good shape and there was a slight excess of receipts over expenditures. The Board recommends that the Treasurer be authorized to reinvest the funds available from maturing government bonds in other governmental issues.

Adoption of the report is recommended.

The report was adopted.

**REPORTS OF COMMITTEES
(Standing)**

PUBLICATION

The Journal has continued to publish worthwhile papers, and has demonstrated its value to the Association. Financially it was almost self-supporting, which indicates good management.

Adoption of the report is recommended.

The Board's recommendation was concurred in.

MEDICAL CARE AND PUBLIC RELATIONS

Each year this Committee continues the activities that have proven successful and takes on new ventures. During the past year it extended its educational program to include exhibits at the Fairs in Birmingham and Montgomery—both highly successful. Literature was also distributed to the civic clubs of the State.

The Placement Service is getting established and not only are communities in need of a physician being tabulated and kept current but physicians looking for a place to practice are being advised of openings. This is a service long needed by the State and one that will pay dividends.

Public relations activities of the larger county societies were expanded during the year and it is felt that all societies are doing a better job.

The Board of Censors placed on the Committee the responsibility of the legislative program of the Association, and feels that this is to the advantage of all. It bespeaks the support of every County Medical Society and of each individual physician in supporting the Association's position on the Medical Practice Act and on other endorsed programs.

At the national level the Committee is keeping posted on proposed legislation and making its position known whenever indicated.

The Board is recommending adoption of the report; also commends the Committee for its work.

The report was adopted.

MENTAL HYGIENE

Activities in the field of mental hygiene have been numerous this past year. The progress made by the mental institutions, by the health department services, and by the volunteer State Association has been most encouraging. The long awaited study of mental health needs and resources, sponsored by the Southern Governors' Council, has outlined the present status of Alabama and something of the path that should be followed. The appointment of a full-time department head in the Department of Psychiatry and Neurology at the Medical College is gratifying.

The Board recommends adoption of the report.

The report was adopted.

MATERNAL AND CHILD HEALTH

The Committee reports on its study of maternal deaths and as to what happened in 1954. The readiness of the profession to analyze the causes of these deaths and to seek correction of the causes augurs well for the future. In the meantime there are still too many maternal deaths.

In conjunction with the pediatricians of the State, similar studies are under way on deaths from prematurity. The Board urges the cooperation of the profession in these important programs.

Adoption of the report is recommended.

The Board's recommendation was concurred in.

CANCER CONTROL

The Committee gives an excellent review of the present activities in the cancer field. The procedures to follow in securing state aid for a cancer or suspect cancer patient should be reviewed by all physicians to obviate any delay. Proper selection and referral of patients will also help the clinic staffs in handling these patients.

The mysteries surrounding cancer have not as yet been solved but intelligent treatment applied as early as possible will do much to extend longevity and alleviate suffering.

The report is recommended for adoption.

The report was adopted.

PREVENTION OF BLINDNESS AND DEAFNESS

Progress in the field of prevention is apparent from the Committee's report. Its comments with regard to the dangers of indelible pencils (aniline) and to the need for hardened or plastic lenses in industries having hazards associated with flying particles are particularly noteworthy.

The Association joins the Committee in its commendation of the various Lions Clubs and their contribution to the needy of the State.

The Board recommends adoption of the report.

The report was adopted.

POSTGRADUATE STUDY

Members from fifteen counties availed themselves of postgraduate seminars during the year, with eighteen members of the faculty of the Medical College presenting subjects of mutual interest. This acceptance of the program is encouraging but there should be wider coverage of the State. The Association and the Health Department jointly finance the program, and to justify continuation more counties should form assembly groups.

The Board commends the Committee for its work and urges County Medical Societies to give consideration to utilizing the proffered seminars.

The Board recommends adoption of the report.

The report was adopted.

PHYSICIAN-DRUGGIST RELATIONSHIPS

The problem of addiction to barbiturates is claiming the attention of many leaders throughout the country. This Committee's caution to both professions is very timely in calling this matter to our attention. The suggestion of an annual meeting at the county level would solve many of the problems.

The Board recommends adoption of the report.

The report was adopted.

ANESTHESIOLOGY

The formation of a Jefferson County Society of Anesthesiology is a forward step and should offer increased scientific opportunities to the members in this area.

The study of operating room fatalities can only result in improved techniques, and the action of the Committee is to be commended. The placement service for anesthetists should be integrated with the placement service offered by the Public Relations Committee, so that no overlapping of functions results.

The Board recommends adoption of the report.

The Board's recommendation was concurred in.

TUBERCULOSIS

Another new low in tuberculosis deaths in 1954 continues the downward trend of deaths. There has been, however, no corresponding decrease in cases found or in the total prevalence of the disease. The lack of adequate surgical facilities is still handicapping the sanatoria in their treatment program, but in spite of this the sanatoria are doing an outstanding job of caring for the tuberculous sick. The culturing service

of the State Laboratories has proven to be extremely valuable and should be resumed as soon as possible.

The Board recommends the adoption of the report.

The report was adopted.

UNITED MINE WORKERS MEDICAL CARE PROGRAM

The Committee makes a detailed report of its activities and covers at length many of the problems associated with the provision of medical care to coal miners in Alabama. The utilization of hospitals, the amount of surgery done, the payment of participating physicians, the utilization of specialists, and other problems are of interest to all those in the coal mining areas. Meetings of representatives of the Fund and Committee members have indicated a willingness on both sides to discuss the problems. The Board recommends that a member of the Committee attend the next meeting sponsored by the American Medical Association for discussion of medical care programs in the bituminous coal mining areas.

Adoption of the report is recommended.

The report was adopted.

BLUE CROSS-BLUE SHIELD

The comprehensive report of the six representatives of this Association on the Board of Blue Cross-Blue Shield should be of interest to all. This Association is one of the founders and sponsors of Blue Cross, and its success is of paramount concern to the profession. Abuses that arise from time to time are brought out by this report and in certain instances they may be corrected by action of the practicing profession. Complete perusal of the report is recommended to all members.

The expression of the Board received approval and the report was adopted.

REPORTS OF COMMITTEES (Special)

INSURANCE

This Committee has done an excellent research job on personal liability, and sick and accident group insurance.

The Board recommends that this Committee be continued and instructed to ascertain by communication with each member of the Association as to whether the majority of members want a Master Policy held by the Association under which the individual doctors may obtain physician's liability and sick and accident insurance at a cheaper rate, and under which those in the Association who cannot now get such insurance may be able to do so. The adoption of the report is recommended.

The report was adopted.

CORONER SYSTEM

In accordance with a resolution adopted in 1954 the President appointed a committee to investigate the coroner system in Alabama, and to suggest changes in the state law. This Committee, consisting of Drs. J. A. Cunningham, as

Chairman, and I. M. Wise, J. S. P. Beck and Brooks Bishop as members, has worked diligently and in cooperation with the State Department of Toxicology and the State Bar Association.

Its recommendations are in the nature of an interim report since time did not permit final conclusions. The Board concurs in the recommendations that the Committee be continued for the next two years in order to draft a comprehensive law. It feels that physicians should definitely accept the job of coroner in the twenty-five counties not now covered and urges County Medical Societies in those counties to take necessary action.

The Board recommends that the Association endorse the plans of the Department of Toxicology to provide adequate autopsy service.

The Board recommends the adoption of the report.

The report was adopted.

AMERICAN MEDICAL EDUCATION FOUNDATION

The efforts of this new Committee are revealed by the substantial increase during 1954 in donations from Alabama physicians. The goal of the Committee for \$10,000 in 1955 is an ambitious undertaking, but the Board bespeaks the support of the Association members.

Adoption of the report is recommended.

The report was adopted.

AMERICAN CANCER SOCIETY ALABAMA DIVISION

The report of activities of the American Cancer Society is always of interest to the medical profession. The Society works very closely with the Health Department, but does not overlap on activities. The Health Department is responsible for the indigent cancer treatment program while the Society supplements this by providing transportation, drugs, home dressings, etc., in addition to its educational and research programs.

The Board appreciates the annual report from the Society.

The expression of the Board was concurred in by the Association.

LEGISLATION

The State Legislature meets this year and will be presented with a request for support for several important health activities. The Health Department is operating on materially lessened appropriations than was the case five years ago, due to cuts in federal finances. The needs of the department for general operations are not excessive but are essential. Requests for greater support of the tuberculosis program and of State moneys for hospital construction purposes should rank high on the legislative program. An expanded maternal and child health program and the provision of adequate vaccine against poliomyelitis are also being requested. The Board recommends that members of the Association familiarize themselves with the health needs of the State and actively support them.

The Association approved.

MEDICAL SCHOLARSHIPS

The first six scholarships under the scholarship program of the State were awarded to boys entering medical school in the fall of 1953. Six more were awarded to freshmen beginning in 1954, and the Board at this meeting has awarded six to freshmen beginning medical school this coming fall. This program will not affect the supply of doctors for rural areas for a few years yet, but a potential source is being created.

This portion of the Board's report was received as information.

APPOINTMENTS TO BLUE CROSS-BLUE SHIELD

Since the terms on the Blue Cross-Blue Shield Board of Dr. B. M. McNease, Fayette, and Dr. E. Bryce Robinson, Fairfield, will expire February 28, 1956 and they cannot succeed themselves, the Board has nominated Dr. Robert H. Mason, Hamilton, to succeed Dr. McNease and Dr. Gordon M. Hankins, Fairfield, to succeed Dr. Robinson for terms of three years beginning February 28, 1956, and expiring February 28, 1959.

Inasmuch as Dr. T. Brannon Hubbard, whose term would have expired February 28, 1957, has resigned, the Board nominated Dr. Haywood S. Bartlett, Montgomery, to succeed Dr. Hubbard, to fill this unexpired term.

The Board recommends approval by the Association of these nominations.

The Association approved the nominations.

PHYSICIANS' ADVISORY BOARD

THE UNIVERSITY OF ALABAMA

Since the term of Dr. Josiah H. Smith, Selma, on the Physicians' Advisory Board to the University of Alabama expires July 28, 1955, the Board nominated Dr. James Fairly Alison, Selma, to succeed him for a term of five years beginning July 28, 1955, and expiring July 28, 1960.

The Board recommends approval of this nomination.

The nomination was approved.

APPOINTMENT TO ADVISORY COUNCIL

NURSE EXAMINERS AND REGISTRATION

Since the term of Dr. E. G. Moore, Tallahassee, on the Advisory Council to the Board of Nurse Examiners and Registration expires September 4, 1955, the Board nominated him to succeed himself for another term of four years expiring September 4, 1959.

The Board recommends approval of this nomination.

The nomination was approved.

RESOLUTIONS

ON REAPPORTIONMENT OF DELEGATES (Introduced by Mobile's Delegates)

WHEREAS, In 1915, by unanimous vote, the Association amended its Charter and revised its Constitution to provide for the equitable representation of County Medical Societies; and

WHEREAS, Article V, Section 1 of the revised Constitution provides for each County Society to have the same number of delegates as that

county has representatives in the lower house of the State Legislature with an additional delegate in those counties having only one representative; and

WHEREAS, Section 199 of the Constitution of the State of Alabama provides for the reapportionment of the members of the Legislature every ten years so that the number of representatives of the lower house for each county shall be based on the current federal census; and

WHEREAS, The allocation of delegates made in 1915 is no longer fair and just, since failure of the Legislature to comply with the provisions of the State Constitution has resulted in six County Medical Societies having an improper number of delegates, therefore be it

Resolved, That Article V, Section 1 of the Constitution of the Medical Association of the State of Alabama be amended to read as follows:

Section 1. (a) Until such time as new County Societies are granted charters, one hundred and six delegates shall be apportioned among the sixty-seven County Societies now in affiliation with the Association by the State Board of Censors according to the number of inhabitants in the respective counties as ascertained by the last decennial census of the United States, which apportionment, when made, shall not be subject to alteration until the next annual meeting of the Association after the next decennial census of the United States shall have been completed and published.

(b) When the number of delegates provided for in Section 1 (a) of this Article shall have been apportioned, each County Society which has been allotted one delegate by such apportionment shall be allowed one additional delegate so that no County Society shall have less than two delegates.

(c) In the event new County Societies are chartered by the Association each new Society shall be allowed two delegates and the number of delegates provided for in Section 1 (a) of this Article shall be increased by one for each such County Society as may be chartered.

(d) Until the State Board of Censors shall make an apportionment of delegates as provided in the preceding sections, the Medical Societies of the counties of Autauga, Baldwin, Barbour, Bibb, Blount, Bullock, Butler, Chambers, Cherokee, Chilton, Choctaw, Clarke, Clay, Cleburne, Coffee, Colbert, Conecuh, Coosa, Covington, Crenshaw, Cullman, Dale, Dallas, DeKalb, Elmore, Escambia, Fayette, Franklin, Geneva, Greene, Hale, Henry, Houston, Jackson, Lauderdale, Lawrence, Lee, Limestone, Lowndes, Macon, Madison, Marengo, Marion, Marshall, Monroe, Morgan, Perry, Pickens, Pike, Randolph, Russell, St. Clair, Shelby, Sumter, Talladega, Tallapoosa, Walker, Washington, Wilcox, and Winston shall each have two delegates; and the Medical Societies of the counties of Etowah, Calhoun, and Tuscaloosa shall each have three delegates; and the medical society of Montgomery county shall have four delegates; and the Medical Society of Mobile county shall have seven delegates; and the Medical Society of Jefferson county shall have eighteen delegates.

Since this resolution carries a proposed amendment to the Constitution of the Association, it will have to lie over for one year before consideration by the Board. The Board so recommends.

The Association concurred in the recommendation.

ON ADOPTION OF CHILDREN

(Introduced by Dr. Robert Parker)

WHEREAS, The adoption of children into unrelated homes is of continuing and increasing interest to prospective foster parents, to the public generally, and to the Medical Association of the State of Alabama; and

WHEREAS, Alabama law since 1931 has established legal procedures for adoption so as to safeguard the children as well as the natural and foster parents; and

WHEREAS, Recognition must be given to the fact that physicians occupy, in many instances, strategic positions when children are in danger of being deprived of parental care and support by virtue of the fact that (1) the natural mother may have made the initial contact with the physician in her time of stress and discouragement; (2) the physician may have delivered the child; and (3) persons desiring to adopt a child may have made the original contact with their physician; and

WHEREAS, It is recognized that the State law makes specific provision for authorized agencies staffed by social workers to render service to natural parents, to children in danger of being deprived of parental care and support, and to prospective foster parents; and

WHEREAS, As important as the role of the physician is, his profession does not equip him to replace the role of the social worker, therefore be it

Resolved, That the Medical Association of the State of Alabama recommends (1) that all County Medical Societies carefully scrutinize any practice leading to the placement or referral of children for adoption by physicians; and (2) that individual physicians use their influence to acquaint their patients to whom they provide professional service with the procedures of adoption as prescribed by law; and be it further

Resolved, That a copy of this resolution be mailed to the presidents of all County Medical Societies, to the State Health Officer, to the probate judges in the sixty-seven counties, and to the Commissioner of the State Department of Public Welfare.

The Board recommends adoption of this resolution.

The resolution was adopted.

Part I of the Board's report was approved as a whole.

PART II

REPORT OF THE BOARD OF CENSORS AS A BOARD OF MEDICAL EXAMINERS

In this field of its activities the Board submits the following statistical report for 1954:

Certificates of qualification granted	145
1. Physicians passing examinations June 22-24, 1954	62
(a) Certificates granted	7
(b) Certificates to be granted after internships	55
2. Chiropractor failing to pass examinations June 22-24, 1954	1
3. Naturopath failing to pass examinations June 22-24, 1954	1
4. Certificates granted applicants completing internships July 1, 1954	50
5. Physicians licensed through reciprocity	63
6. Diplomates National Board of Medical Examiners licensed	24
7. Commissioned officer U. S. Army licensed	1
8. Physician relicensed to practice medicine	1
9. Physician's certificate of qualification to practice medicine revoked	1
10. Chiropody renewal licenses granted	34

CERTIFICATES OF QUALIFICATION GRANTED JUNE 1954 APPLICANTS

Burroughs, Ralph B.	Perry, William J.
Canas, Robert R.	Walton, Johnye R.
Cason, James F.	Weil, Warren B.
Noguera, John F.	

CERTIFICATES TO BE ISSUED AFTER ONE YEAR OF SATISFACTORY INTERNSHIP

Anderson, William R.	Kominek, Robert L.
Angelich, James D.	Kospetos, Kathryn N.
Azar, David A.	Landers, Bluitt L., Jr.
Barnes, Glenn Dickson	Leonard, Howard E., Jr.
Bentley, Herschel P., Jr.	Lindsey, Arthur R.
Blaylock, Harry I., Jr.	Mann, Morris B.
Bradley, Eugene H.	McGinnis, Gaston O.
Burke, Arnold C.	Melson, Gilbert R.
Carlin, John T., Jr.	Mims, John P.
Carnaggio, Vincent A.	Moody, James E.
Cook, Ottis D.	Moseley, James R.
Cowser, Elsie J.	Neeland, Eugene C.
Crump, Charles H.	Okel, Benjamin B.
Dudley, Robert H.	O'Neal, Joe W.
Everett, Gerald W.	Pappas, William G.
Gaut, Zane N.	Phillips, Edwin J.
Hagan, Andrew D.	Phillips, Frank P.
Hall, Harold J.	Prescott, Cecil H.
Hammack, William J.	Rattray, Charles F., Jr.
Hanahan, Marion L., III	Roberts, Shaler S., Jr.
Harris, Albert B.	Robertson, James E.
Hollis, Charles J.	Sheffield, Lowell T., Jr.
Hooper, Donald	Thomas, Robert L., Jr.
Hundley, Richard Zol	Thompson, Ira D.
Jenkins, Howard D.	Vickey, Robert E.
Jordan, Bertis B.	Weaver, George H.
Kahn, Donald R.	Whitley, Elton C., Jr.
Kenan, William O.	

CERTIFICATES GRANTED APPLICANTS COMPLETING INTERNSHIPS JULY 1, 1954

Akin, John M., Jr.	Cheek, George W., Jr.
Anderson, Lewis D.	Clayton, Horace C.
Baker, James T.	Coleman, Ermin E., Jr.
Berg, Frank A.	Crews, Frederick F.
Boshell, Buris R.	Cruit, Robert L.
Chandler, Adrian A.	Curtis, Earnest M., Jr.

Davies, James S.	McCue, Patrick
Douglas, William W.	McLaughlin, Robert J.
Duncan, John E.	Motte, Elmer
Enslen, Phillip J.	Nelson, Oscar T.
Finlay, William C.	Norvell, Samuel S.
Floyd, Homer H., Jr.	Palmer, Stephen D.
Golden, Clarence L.	Porch, Ellis F.
Griffin, Arthur	Primm, Chester B.
Guyton, Robert D.	Riley, Oscar, Jr.
Hammack, William J.	Stanley, James F.
Harris, Herschel B.	Stephens, Selden H., Jr.
Holt, Douglas C.	Tew, Walter C., Jr.
Hughes, Hugh J.	Thuss, Chauncey B.
Hunt, Albert C.	Vaughn, James D.
Jones, James K.	Walker, William A.
Jordan, Charles D.	Whitehead, Leslie E.
LaGrone, Columbus L.	Wright, James G., Jr.
Lawson, Thomas C., Jr.	Wright, William T.
Linton, Patrick H.	Yow, Stuart, Jr.

RECIPROCITY APPLICANTS APPROVED DURING
THE CALENDAR YEAR OF 1954

Barton, Hugh T.—S. C.	Dec. 7, '54
Benson, John S.—Ill.	July 7, '54
Blackburn, William H.—Tenn.	Mar. 30, '54
Border, Clinton L., Sr.—Ky.	Oct. 27, '54
Bradford, Depew Elliott—N. B. M. E.	Jan. 11, '54
Brandon, Thurman E., Jr.—La.	May 11, '54
Brannon, Revis A., Jr.—Miss.	Aug. 20, '54
Brothers, Thomas J.—La.	Aug. 23, '54
Cameron, Dale C.—U. S. P. H. S.	Jan. 26, '54
Campbell, Ewell F., Jr.—Ga.	Mar. 26, '54
Caple, James E.—Tenn.	Oct. 19, '54
Carrier, Marshall H., Jr.—Md.	Apr. 27, '54
Chalian, Alexander R.—N. B. M. E.	Mar. 26, '54
Coats, William P.—N. B. M. E.	July 28, '54
Coleman, Jack T.—La.	July 2, '54
Crow, Charles B., Jr.—Md.	May 3, '54
Crum, Gertrude M. L.—N. B. M. E.	Oct. 18, '54
Dagovitz, Leonard I.—Ill.	Jan. 13, '54
Dunn, David Earl, Jr.—N. B. M. E.	Jan. 6, '54
Edwards, Hartwell P.—N. B. M. E.	July 28, '54
Frain, Marie M.—Ga.	Dec. 10, '54
Garner, Mabry E.—Ga.	Sept. 29, '54
Gibbins, George W.—Ark.	June 11, '54
Gilliland, Paul C.—U. S. Army	Sept. 22, '54
Grady, Robert W.—Ky.	Jan. 11, '54
Hackley, Donna J.—N. B. M. E.	Oct. 8, '54
Haffner, Vorha May—Kan.	Apr. 8, '54
Harris, Homer W., Jr.—Tex.	June 11, '54
Harsh, Griffith R., III—Tenn.	June 28, '54
Hendrick, James W.—La.	June 30, '54
Hicks, Julius N.—N. B. M. E.	Nov. 4, '54
Hill, Samuel R., Jr.—N. C.	Nov. 24, '54
Hinton, Forrest—N. B. M. E.	Aug. 18, '54
Hunsaker, Curtis A.—Ill.	Nov. 19, '54
Johnson, James E., Jr.—Ga.	May 28, '54
Johnson, Pearce S.—La.	Sept. 27, '54
Jones, Richard E., Jr.—Tenn.	June 15, '54
Judge, Dom J.—Minn.	Apr. 23, '54
Kahn, Leon—La.	Feb. 15, '54
Kellum, Agrippa S.—Miss.	June 28, '54
Kelly, Stephen J.—Kan.	Sept. 7, '54
Kent, Sidney P.—N. B. M. E.	July 12, '54
Kingery, James R.—Ga.	Oct. 21, '54
Kirby, Taylor H., Jr.—N. B. M. E.	Sept. 7, '54
Lowrey, Daniel B.—Mo.	May 28, '54
Mack, Daniel E.—Conn.	Mar. 15, '54
May, Robert M.—La.	Apr. 6, '54
Meadors, Jason L.—Ga.	May 11, '54

Middleton, Theodore F.—La.	Oct. 19, '54
Miller, William A.—Md.	Apr. 20, '54
Moore, Bernie H., Jr.—La.	May 28, '54
Nettles, Mark K.—Md.	July 28, '54
Okano, Takeshi—N. B. M. E.	July 19, '54
Owensby, David E.—Calif.	Nov. 19, '54
Paine, Thomas F., Jr.—Tenn.	Sept. 7, '54
Patrick, Killough H., Jr.—Ga.	July 28, '54
Patton, Thomas B.—Pa.	Feb. 1, '54
Paul, Robert K.—Ark.	June 28, '54
Peet, Ruth H.—N. C.	Apr. 30, '54
Powell, Carl E.—N. B. M. E.	Nov. 1, '54
Purvis, William E., III—Ohio	Apr. 12, '54
Reed, Ray D.—Tex.	Aug. 30, '54
Risman, George C.—La.	Feb. 15, '54
Ritchey, Hardin M.—N. B. M. E.	Feb. 22, '54
Robertson, Brison O., Jr.—Tenn.	Apr. 23, '54
Rutland, Richard O., Jr.—N. B. M. E.	Aug. 30, '54
Rutledge, James W.—N. B. M. E.	Dec. 7, '54
Sanderson, Willis—N. B. M. E.	Nov. 5, '54
Sarrell, Warren G.—N. B. M. E.	Apr. 13, '54
Scharnitzky, Emile O., Jr.—Ga.	Apr. 2, '54
Schultz, Frank B.—N. B. M. E.	July 28, '54
Scott, Edwin L.—Col.	Feb. 22, '54
Sherrod, Henry L., Jr.—La.	July 16, '54
Shirley, Sheridan W.—N. B. M. E.	Nov. 4, '54
Shook, Burton S., Sr.—Tenn.	Apr. 23, '54
Shuman, Warren G.—Ga.	June 11, '54
Speir, Ross C., Jr.—N. B. M. E.	June 7, '54
Stewart, Jonas H., Jr.—N. B. M. E.	Aug. 16, '54
Tragle, William H.—Pa.	Apr. 23, '54
Tucker, Jolyon S.—N. B. M. E.	Mar. 19, '54
Wade, Robert C.—Ga.	June 22, '54
Walker, Christopher J., Jr.—Ga.	Oct. 15, '54
Weiss, John T.—La.	June 16, '54
White, John B., Jr.—La.	Jan. 13, '54
Wilkerson, Ellis W., III—La.	May 5, '54
Wood, Herman C.—Ill.	July 16, '54
Wood, Arthur E., Jr.—Miss.	Dec. 13, '54
Woodruff, Gerald G., Jr.—N. B. M. E.	May 17, '54

CHIROPODY RENEWAL LICENSES GRANTED
FOR 1954

Alexander, Isadore H.	Leighty, Fred G.
AuCoin, William J.	Lewis, Martin
Austin, Elizabeth Sealy	Miller, John
Benitez, George W.	Oxford, Herman R. A.
Blotzer, Ellen L.	Pearson, Joe P.
Blotzer, John S.	Peterson, Bessie C.
Clark, George E.	Plevine, Erich H.
Coleman, Jasper C.	Rae, Hugh
Cooper, John M.	Riccio, Peter D.
Crowley, Coy H.	Rollings, Harry H.
Crowley, Gentry B.	Sealy, Ariel L.
Davis, Edith M.	Sealy, Edward E.
DeViso, Viola	Silverman, Isidor
Dixon, Mildred K.	White, Juddie B.
Draper, William L.	Wittick, Arthur, Jr.
Edwards, Charles M.	Wright, Thomas L.
LeCroy, Thomas H.	Young, Frank N.

Part II of the Board's report was approved.

PART III

REPORT OF THE BOARD OF CENSORS AS A
STATE COMMITTEE OF PUBLIC HEALTH

D. G. Gill, M. D.
State Health Officer

The activities of the State Department of Health during 1954 reflect its progress and accomplishments. Many of these activities are

outlined in some detail in the reports that follow. Although the State's birth rate declined slightly, the rate remained above the national average, while the death rate dropped to a record low point. Moreover, fewer infant deaths were recorded than during 1953 and the maternal death rate was the lowest in the State's history. There were 19 deaths from measles, 11 from whooping cough, 12 from diphtheria, and none from malaria and typhoid. Tuberculosis claimed 52 fewer lives than in 1953, in a continuation of this disease's falling mortality rate. Meanwhile, construction of the regional tuberculosis hospital at Gadsden neared completion.

Montgomery County was one of 217 areas in the Nation chosen to participate in the 1954 Salk vaccine field trials. The test of the vaccine's effectiveness for poliomyelitis prevention and control followed the Montgomery trial of gamma globulin in 1953. Of the 10,800 first, second and third grade school children eligible, 8,253 completed the series of three injections over a period of five weeks. One-half of this group was given Salk vaccine, while the remaining one-half was given a placebo for control purposes. Physicians, nurses, volunteer workers, and State Health Department personnel cooperated in carrying out this program. A report of the study will be made in the spring of 1955.

The early part of October marked the completion of the State Office Building, and adequate space in it was provided for the State Health Department. The entire second floor and one-half of the third floor house the Department's offices. At the same time, the Central Laboratories occupied a new building, complete with new equipment.

The Department is no longer able to maintain the level of services available in some earlier years due to the continued cuts in federal grants.

HOSPITAL CONSTRUCTION

During the calendar year 1954 a total of 181 general hospital beds was added to Alabama's public, nonprofit and private hospitals. Of these, 85 were added by completion of two hospitals under the Hill-Burton program. There were 96 beds added by nonfederally-aided construction, largely through additions and alterations to existing facilities. Other Hill-Burton projects completed included two public health centers and one public health laboratory.

Facilities completed under the Hill-Burton program were:

Facility	Location	Type	Beds
Barbour County Hospital	Eufaula	Gen.	50
D. W. McMillan Memorial Hospital	Brewton	Gen.	35
Lauderdale County Health Center	Florence	PHC	—
Enterprise Health Center	Enterprise	PHC	—
Public Health Laboratories	Montgomery	PHL	—

Hill-Burton facilities under construction and

approved for construction on December 31, 1954 included eight general hospitals, one tuberculosis sanatorium, six public health centers, and three public health laboratories.

Facilities under construction and approved for construction include:

Facility	Location	Type	Beds
St. Margaret's Hospital (Annex)	Montgomery	Gen.	95
Arab Hospital and Health Center	Arab	Gen. & PHC	20
Chilton County Hospital	Clanton	Gen.	40
Geneva County Hospital	Geneva	Gen.	30
Jackson County Hospital	Scottsboro	Gen.	35
Marengo County Health Center	Linden	PHC	—
Eastern Health Center	Birmingham	PHC	—
Montgomery County Health Center	Montgomery	PHC	—
District IV Tuberculosis Sanatorium	Gadsden	TB	150
Cullman Hospital (Annex)	Cullman	Gen.	50
Houston County Hospital	Dothan	Gen.	75
Huntsville Hospital (Annex)	Huntsville	Gen.	50
Tuscaloosa County Health Center	Tuscaloosa	PHC & PHL	—
Mobile County Health Center	Mobile	PHC & PHL	—

At the end of the year, the Division of Hospital Planning had on file applications for the following projects:

Type	Number of Projects	Beds
General Hospitals	32	1158
Tuberculosis Sanatoria	3	363
Public Health Centers	12	—
Schools of Nursing	5	—
Chronic Disease Hospitals	1	50
Nursing Homes	2	65
Rehabilitation Centers	2	131
Diagnostic and Treatment Centers	1	—
	58	1737

Of the 58 applications on file, 11 were received during the year. Of the 32 applications for general hospitals, 14 are for additions to existing hospitals, one is for a replacement, 10 are for new facilities, and seven are for the construction of supplementary facilities. This latter category consists of small hospitals to be operated by the local county hospital authority as supplementary facilities to existing hospitals. Of particular interest are the applications for the four new categories (chronic disease hospitals, nursing

homes, rehabilitation centers, and diagnostic and treatment centers) added by the 1954 amendment to the Hill-Burton Act.

HOSPITAL LICENSURE

During the year, licenses were issued to 163 general hospitals, 39 clinic-hospitals, 72 nursing homes, and two maternity homes. Of the 237 licenses issued, 224 were regular licenses. Thirteen temporary licenses were issued to facilities with corrective action incomplete or for which replacements under the Hill-Burton program were being planned. Two institutions were closed for failure to comply with the regulations.

The Division of Hospital Planning assisted the Alabama Hospital Association and the Hospital Service Corporation of Alabama, Blue Cross, in conducting several accounting workshops to explain the uniform accounting system for small hospitals developed during the preceding year. In cooperation with the University of Alabama and the Alabama Hospital Association, the Division sponsored a dietary nutrition workshop at the University.

Regulations governing cerebral palsy treatment centers were prepared by the Division and adopted by the State Board of Health.

During the year, the Division conducted, in cooperation with the State Department of Public Welfare, an intensive survey of nursing homes. A comprehensive report, which received wide distribution, was prepared.

Civil defense activities of the Division continued at about the same pace as that established in the preceding year. Personnel of the Division attended a civil defense conference in Atlanta during the year and a regular section devoted to civil defense was inaugurated in NEWS AND NOTES.

Three members of the Division attended the annual meeting of the Alabama Hospital Association, and the Director attended a conference in Washington to discuss the provisions of the amendment to the Hill-Burton Act which added four new categories of facilities.

MENTAL HYGIENE

The year 1954 was one of consolidation of program gains rather than one of expansion of preventive mental hygiene activities. Two new activities were initiated by the Division of Mental Hygiene: one a research project and another a new community clinic in Montgomery. With an anticipated increase in funds next year, the Division is now making plans to expand its services as it continues to attack one of Alabama's most important public health problems.

For the purposes of this report, the structure and activities of the Division during 1954 are outlined under sectional headings:

I. State Staff

Three changes were made in the staff during 1954. Miss Alsi C. Robinette was appointed to the position of psychiatric social work consultant; Mr. Horatius Pugh resigned as mental health educator, and Mrs. Paula McKinney Brown, psychologist, returned from New York Univer-

sity, where she had been working to fulfill requirements for the Ph. D. degree. Mrs. Brown, however, later resigned to return to New York. This left, at the year's end, two professional workers on the state staff.

In December the Division's offices were moved from Birmingham to Montgomery where it joined its parent organization, the State Health Department.

II. Educational Services

A. Our library of 50 mental health films was used more this year by Alabama groups than ever before. It is estimated that a total audience of 120,000 saw them. In fact, the demand has been so heavy that the Division is planning to increase its library by ten additional films next year.

These films deal with such mental health subjects as child-rearing practices, mental illness, problems of teenagers, and normal psychodevelopmental changes parents can expect in their children.

B. Alabama Mental Health

This is a bulletin published monthly by the Division for seven months of the year. Its purpose is to communicate mental health news events and to present timely mental health topics. The mailing list of this bulletin was thoroughly overhauled and the list was reduced to about 4,000. Next year the Division plans to publish nine issues, with the Alabama Association for Mental Health underwriting one.

C. Other Educational Services

Numerous other educational activities were carried out by the Division, such as a human relations institute at Snead College, nursing institutes, workshops designed to train parent leaders in the field of mental hygiene, and numerous speeches and talks throughout the State.

III. Research

Recognizing the great need for research in mental health, the Division initiated a modest research program with very limited funds. A survey that was conducted (reported below) revealed that practically no research in mental health was being conducted in Alabama. And yet, it was recognized that investigations of the problems of mental illness and of ways to maintain mental health were sorely needed. It was felt that Alabama should initiate a research program around problems that were prevalent in Alabama and not prevalent in places like New York City and other large metropolitan areas where most current mental health research is being done. Dr. Thomas F. Gilbert was appointed research consultant to the Division, to work with staff members on a project dealing with community attitudes involved in certain mental health practices. By investigating the causes of emotional disturbances through systematic research, we earnestly believe that a more effective preventive program will be obtained, thus adding to the well-being and productivity of the people of Alabama.

IV. The Governor's Mental Health Committee

The Division's staff played a significant role

on the Governor's Committee on Mental Health Training and Research. This statewide committee surveyed the need for training and research personnel in Alabama and issued a report to the Governor. One of the Committee's recommendations was that the Division of Mental Hygiene set up a training and research program. To meet this recommendation it was estimated that a sum of \$84,166 should be appropriated by the State Legislature.

The Division is laying careful plans for a program of expansion next year. Increased activities must rest, of course, on increased appropriations.

V. Local Community Mental Health Programs and Out-Patient Clinics

A new mental health service for Montgomery County was created through that county's matching of State funds. This makes the sixth such service in the State. Like the other units, Montgomery's program operates a part-time clinic, with a full-time psychiatric social worker and a consultant psychiatrist and clinical psychologist.

Last year, over 1,300 patients received diagnostic, treatment and guidance services from Alabama's six mental health clinics. Clinical services are viewed as important first-aid prevention work. It is estimated, however, that if the staff of each clinic were full-time, many times this number could be helped. As it now stands, each clinic has long waiting lists.

MACHINE TABULATION

The Division of Machine Tabulation continued in its capacity of a service unit during 1954. Work for the various Bureaus and Divisions of the State Health Department was undertaken and completed regularly, and services were performed occasionally for some County Health Departments.

Indexes and statistical reports prepared for the Bureau of Preventable Diseases included monthly and quarterly reports on venereal disease, tables of statistics for inclusion in the Department's annual report, maintenance of a central registry of venereal disease contacts, together with monthly, semiannual and annual reports of contacts named and the disposition made by the County Health Department concerned.

In addition, for this same Bureau, the Division prepared statistical tabulations, reports and listings relative to tuberculosis mass surveys. A central registry for the Division of Tuberculosis Control, designed to furnish up-to-date information on such factors as sputum changes, etc., was maintained daily. For the Division of Cancer Control, special monthly, semiannual and annual reports were compiled.

For the Bureau of Vital Statistics, the Division transcribed to punch cards data from birth, death, marriage, divorce, stillbirth, accidental death and infant mortality certificates. Also, regular indexes and monthly, quarterly, semiannual and annual reports were prepared and the reindexing of 1946 marriages was completed.

An annual report on selected information from the county activity summaries was tabulated for the Bureau of Maternal and Child Health, and

a special dental survey was prepared.

For the Bureau of County Health Work, the Division prepared the regular annual summary of activities of the 67 County Health Departments. Also, beginning in July 1954, personnel records for county employees were set up on I. B. M. punch cards.

Miscellaneous reports were prepared for the Bureau of Sanitation.

The Division transcribed a total of 27,284 records to punch cards for a statistical report on premarital blood tests at the request of the Bureau of Laboratories. Other services performed for this Bureau were the transcription to punch cards of information relative to laboratory specimens, Kahn and V. D. R. L. tests received from doctors and hospitals; preparation of comparative tests; monthly reports made for mailing to doctors and hospitals, and special studies and statistical reports on rabies incidence.

The regular monthly, quarterly and semi-annual reports were compiled for the Division of Finance, in addition to special budget reports.

The latest models of I. B. M. punch devices were installed in the Division's quarters when the Department accomplished its move into the new State Office Building in October 1954. In the same month, the Division added a reproduction unit with dark room. One additional employee was added as the Division began printing operations. In the closing months of the year, completed printing work was turned out for all units of the State Health Department and for some county units.

In summary, the Division printed close to one million impressions, punched 679,308 I. B. M. cards, and checked them for accuracy. These cards were used numerous times for the intermittent and manifold reports that are prepared as the cards are accumulated month by month.

PUBLIC HEALTH EDUCATION

A continuous dissemination of health information to residents of Alabama best sums up the activities of the Division of Public Health Education during 1954. As in the past, the channels employed were, for the most part, the conventional mass media, i. e., newspapers and radio.

I. Newspaper Publicity. Two usually brief releases were mailed each day to three Montgomery dailies, the major press services and to local radio stations. A survey of published issues indicates that the daily newspapers printed approximately 501 news and feature articles based on the releases originating with this Division. This excellent coverage, amounting to a mean average of more than one per day, does not occur in newspapers published in other Alabama cities. However, spot checks from time to time reveal that many of these same releases are placed on the press services' wires, picked up and used by other newspapers and radio stations, especially by those in Birmingham.

One release in mimeographed form was issued once each week to daily newspapers published in cities outside the Montgomery area, and also to weekly newspapers. Thus, practically every newspaper and radio station in the State regu-

larly received material from this Division, either directly or indirectly through the news services.

The weekly State Health Chats, brief articles dealing with various phases of public health, continued to be released to the Associated Press.

II. Radio Talk Series. The Division continued to devote a major portion of its time to the 15-minute radio talk weekly series. These talks deal with a variety of subjects, and an attempt is made, when possible, to place emphasis upon diseases and health problems of particular importance to Alabamians. The Division's responsibility for this broadcasting program includes writing of the scripts, their transfer to electronic tape on the Department's own equipment, testing of the tapes, and distribution of them to co-operating radio stations. At the year's outset, tape recordings were being mailed to 15 cooperating stations who sponsored the talks as a public service. However, three stations requested that they be dropped from the schedule, due to the great demands on their public service broadcast time. An attempt will be made to replace the three lost stations with new ones, and possibly to add others.

III. Film Library. The Division maintains a library of 163 films, and they are available to the County Health Departments which are Film Library members. Records regarding film usage, compiled from information furnished by users, indicate that the Division received 357 booking orders during 1954. Moreover, the films booked were shown 705 times, to an estimated audience of 41,043. Users were County Health Department staff members, individuals and community organizations which requested films.

IV. Distribution of Health Information. Information on various phases of health was distributed in booklet and mimeographed form, and in letters for special requests. The weekly radio scripts were mimeographed weekly, thus providing a reservoir of material for distribution. County Health Departments, the State Health Department's own Bureaus and Divisions, health departments in other states and foreign countries and interested individuals and organizations were included on the regular mailing list for this mimeographed publication.

V. Miscellaneous. The Division maintained the library of medical, public health and miscellaneous journals and publications. In the past, inadequate space in temporary quarters has necessitated the library's functioning as little more than a depository. However, adequate space is now available in the new State Office Building, and efforts will be continued to organize library publications to facilitate more extensive use of them as reference material.

The Division edited the Department's annual report, and performed various staff services, including reference work and rewriting and editing of reports and scientific papers.

COUNTY HEALTH WORK

The following consolidated report embracing the State's 67 counties reflects the principal activities and accomplishments in county health work in 1954:

Communicable Disease Control	
Admissions to service	1726
Consultations with physicians	2011
Field visits	4658
Smallpox vaccinations	62215
Diphtheria immunizations	3536
Typhoid fever immunizations	256524
Pertussis immunizations	303
Triple vaccine	91431
Venereal Disease Control	
Admissions to service	15146
Office and clinic visits	30078
Field visits	10737
Number of treatments given	10240
Tuberculosis Control	
Individuals admitted to service	32541
Office and clinic visits	53267
Field visits	52959
Maternity Service	
Cases admitted to service	42724
Office and clinic visits	62210
Cases given postpartum medical examinations	5516
Nursing visits	44650
Maternal death investigations	17
Infant Hygiene	
Individuals admitted to service	33896
Office and clinic visits	30710
Nursing visits	61056
Neonatal death investigations	96
Preschool Hygiene	
Individuals admitted to service	27094
Office and clinic visits	25581
Nursing visits	32441
School Hygiene	
Inspections by physicians and nurses	96047
Examinations by physicians	7718
Individuals admitted to nursing service	3767
Nursing visits	10245
Adult Hygiene	
Medical examinations	7288
Morbidity Service	
Cases admitted to service	4202
Office and clinic visits	4206
Field visits	7084
Cancer Control	
Individuals receiving diagnostic service	1032
Individuals receiving treatment service	1500
Individuals admitted to nursing service	447
Field visits	1409
Dental Correction Service	
Individuals admitted to service	10684
Office and clinic visits	15933
Inspections by dentists and dental hygienists	10702
Prophylactic treatments given	7873
General Sanitation	
Approved individual water supplies installed	951
Approved excreta disposal systems installed	8804
Field visits	106957

Protection of Food and Milk

Food-handling establishments registered for supervision	15257
Field visits to food-handling establishments	82365
Dairy farms registered for supervision	4502
Field visits to dairy farms	25345
Milk plants registered for supervision	604
Field visits to milk plants	7074

Special Control Services

Impounded water projects registered for supervision	2140
Field visits to impounded waters	3149
Premises dusted for typhus control	11714
Field visits in typhus control	23982

Laboratory

Specimens examined	513996
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NURSING ACTIVITIES

Alabama is still far short of public health nurses with actually about one-third the number recommended as a minimum standard of one nurse to each 5,000 of the population. The turnover in staff on the county level continued high. There were 39 resignations and 39 appointments. This number represents about 17 per cent of all nurses employed, and imposes a great financial burden on the Department.

One consultant nurse transferred from the specialty of cancer nursing to that of a general consultant thus enabling us to divide the State into four districts and give more direct supervision to the staff nurses. This has been accomplished through scheduled group conferences as well as visits with individual nurses.

Members of the Division of Public Health Nursing have carried responsibilities in the two state nursing organizations. These duties included serving as members of boards of directors, chairmanships of the nursing in civil defense committee, psychiatric nursing committee and qualifications and standards committee. The Director was appointed by the Governor as a member of a 25-person committee to survey the needs in training and research in the field of psychiatry. She also served as president of the Board of Nurses' Examiners.

The consultants and the county staff nurses kept up their reputation of being the best recruiters for student nurses, lending assistance through talks, movies and organization of Future Nurses' Clubs.

The activities of nurses, as to number of visits made and inoculations given, appears in statistical information submitted by other bureaus and divisions.

One of the most notable advances made was the revamping, in collaboration with the Merit System for County Health Work, of the qualifications for nurses. The changes in designation and salary place Alabama in a favorable position in comparison with other states. In addition, this move has boosted morale among the nurses.

Education: Although Alabama still suffers from a dearth of well-prepared public health nurses, much progress was made during 1954 in training the nurses we have, and the outlook for further progress along this line is good.

Affiliate programs in public health nursing in selected nursing schools in the State were carried out in Mobile, Jefferson and Tuscaloosa Counties.

One new staff nurse had a two weeks' orientation in public health nursing at the Madison County Health Department. Lack of funds limited this activity to one nurse only.

During the year, Jefferson County sent four and the State sent one nurse out of state for a semester each toward furthering their education. Nine nurses took short courses ranging from one to five weeks at the University of North Carolina. These concentrated courses were in cancer, venereal disease, tuberculosis, heart, and geriatrics.

Two nurses attended a Midwife Institute in Beaufort, S. C., and six Jefferson County Negro nurses took an extension course from Tuskegee Institute.

Twenty-five public health nurses, among numerous others representing all fields of nursing, attended a heart institute. Expenses of the public health nurses were borne by the Division of Heart Disease Control.

The School of Nursing at the University of Alabama has been of inestimable value to public health nurses. During the year 46 nurses availed themselves of courses at the various University Centers, while 23 studied during the summer on the campus, and one Mobile County nurse was on the campus for an entire semester.

This all adds up to the fact that there was an increase of 83 per cent in 1954 over 1952 in the number of nurses who had academic work in public health nursing as a result of this stimulation to studying. The number of nurses with degrees moved from 17 in 1952 to 21 in 1954. Quality of performance is improving.

MERIT SYSTEM

During 1954 the Merit System for County Health Work conducted competitive examinations on an open-continuous basis for the following classes: Graduate Registered Nurse I and II, Public Health Nurse I, Clerk I and II, Typist I and II, Sanitation Officer I and II, Sanitation Assistant, Scientific Aide, Milk Inspector I, Public Health Veterinarian I, and Psychiatric Social Worker. Several other classes were open but no applications were received. Examinations for County Health Officer I, II, and III and Sanitation Officer I, II, and III were closed during the year. A new examination for Sanitation Officer I, II, III and IV was announced. The number of applications received for the above examinations totaled 63, of which 59 were acceptable and 57 (two withdrew) appeared for the examinations. From this number, 47 applicants made a passing grade, eight failed and 47 names were placed on eligible registers. There were 22 appointments made from these registers and 15 appointments from eligible lists established previously.

In addition to appointments from eligible lists, a total of 41 positions were filled on a provisional, temporary, emergency or custodial basis. The appointment of one acting health officer was

also made. There were 76 separations from service, which included 41 resignations, four layoffs, 28 expirations of provisional, temporary, or custodial appointments, and three deaths.

The Merit System Council amended Section 4, Rule IX of the Rules and Regulations. This concerned leaves of absences. The Council approved the deletion of the classes of Graduate Registered Nurse I and II and Public Health Nurse I, II and III and the adoption of new classes, specifications and salary ranges for Public Health Nurse I, II, III and IV to be effective January 1, 1955. Revised salary ranges were approved for the following classes: Sanitation Officer I, II, III and IV, Psychiatric Social Worker, Clerk I and II, and Typist I, II and III.

LABORATORIES

The Bureau of Laboratories examined 527,134 specimens during the year 1954 as compared with 544,007 during 1953. While there was a slight decrease in the total number of specimens for the year, there were increases in some categories. There was a slight increase in the number of specimens for intestinal parasites. In addition to the increase in the number of these specimens, the examination procedures were increased in order to heighten the chances of finding intestinal protozoa that are missed when procedures especially suited for helminths are used exclusively. Thus, the increase in the number of these specimens does not give a true picture of the actual increase in laboratory time devoted to the examination of these specimens.

A decrease in the number of blood specimens examined for syphilis was noted. There was demand for more of these examinations than the Laboratories were able to perform due to cramped quarters in the old building which housed the Central Laboratory. Only a few small blood surveys were undertaken during the year.

A slight increase in the number of specimens for tuberculosis was noted. This increase was largely confined to the Central Laboratory where the only cultures were done. The facilities available in the old building were taxed to their limit with the increase of these specimens for both cultures and animal inoculations.

Animal heads examined for rabies showed a decrease when compared with figures of the previous year. However, this disease seems to follow a fairly regular cycle in the State and 1954 was probably in the phase of the cycle which is on the downward trend.

The number of milk samples examined showed a slight increase over the number examined in 1953. These samples have showed a steady, gradual increase for many years.

Consequently, this increase can be fairly accurately predicted. The demand for this work in all the Laboratories exceeds the available personnel and facilities.

MATERNAL AND CHILD HEALTH

In our continuing efforts to improve health conditions for mothers and children and to reduce the maternal and infant mortality rate

in Alabama, several programs were inaugurated during the year. Our maternity and well-baby clinics were well attended, as were the dental clinics. The Bureau continued to furnish funds for pertussis and triple vaccine immunization to children, and stressed the importance of children receiving the vaccines during their first year.

The copper sulfate method for measuring the specific gravity of blood and plasma and conversion into hemoglobin level was instituted in the maternity clinics of nine counties with instructions to follow up after iron therapy to determine whether it was feasible to inaugurate this program on a statewide basis. The first reports on this program are due at the end of February 1955. In other maternity clinics, where the Board of Censors allowed, iron deficiency anemia in the medically indigent clinic patients was treated through distribution of iron tablets through the clinics.

Dr. William L. Scholes joined the staff in April as dental director. Through his efforts a five-year school dental health program was planned. The program was to be carried out in Cloverdale Junior High School, Montgomery, as representative of an urban school and the elementary school in Luverne, Crenshaw County, as typical of a rural school. However, due to the fact that Dr. Scholes resigned at the end of August, this program has not been put into effect. The Bureau again co-sponsored a refresher course in pediatric dentistry through the School of Dentistry, University of Alabama.

The consultant nurses on our staff continued with staff conferences of public health nurses, participated in classes for expectant mothers and fathers, oriented new public health nurses in various County Health Departments and served in teaching and consultation capacity over a large area of the State. Miss Thelma Walker was on educational leave for three months during the year and was awarded the B. S. degree from George Peabody College for Teachers, Nashville, Tennessee, in August. Miss Frances Raley joined our staff in April as consultant nurse, and also participated in in-service education by attending a two-week Midwife Institute held in Beaufort, South Carolina, in June.

During 1954, 3,191 maternity clinics were conducted in 50 counties with 149 physicians participating and 54,238 patients admitted.

A total of 619 well-baby clinic sessions was held in 21 counties, with 46 physicians participating and 11,198 patients admitted.

A total of 419 dental clinics was held in 30 counties during the year. Seventy-four dentists served in this program and 11,888 patients were admitted.

Nutrition: The major part of the nutrition services during the year related to child health. The services included food demonstrations at maternity clinics, special services at Crippled Children's Clinics, one-day conferences with midwives concerning diets during pregnancy, work with classroom teachers in elementary grades, and workshops for school lunch managers and for personnel in child-caring institutions.

The nutritionist participated in two food service conferences conducted for personnel in dietary departments in small hospitals and nursing homes. Food service in four nursing homes was evaluated and recommendations made as indicated.

During the year the nutritionist attended and took an active part in six civil defense meetings on emergency mass feeding held in this area.

MACON COUNTY MATERNITY AND INFANT CARE PROGRAM

The Macon County Maternity and Infant Care Program continued to provide much-needed care for medically indigent, Negro abnormal maternity cases and premature or sick infants. An effort was made to reeducate the County Health Departments as to the care provided by the pathological obstetric clinic and John A. Andrew Memorial Hospital in Tuskegee through this program. Four well-qualified physicians served as teaching consultants at the John A. Andrew Memorial Hospital in connection with the MCMC Program.

PREVENTABLE DISEASES

The communicable disease picture remained about the same as in previous years, with those diseases that have immunizing agents either remaining stationary or showing a downward trend, and the others reflecting their epidemic or non-epidemic status.

Poliomyelitis, standing on the threshold of its possible new immunizing agent, slammed harder at the susceptibles than in any other non-epidemic year except in 1953. There were 370 poliomyelitis cases reported. It appears as if this disease is building up for a grand onslaught in 1956. To offset this surreptitiousness on polio's part, a study of the effectiveness of the Salk vaccine was made in Montgomery County. One-half of the children, 10,800 enrolled in the first, second and third grades of the public, private and parochial schools, were given, after parental approval, the Salk vaccine and the other one-half were given a placebo. There were 8,300 children who availed themselves of this unique opportunity and 8,253, or 99.3 per cent, completed the course of three one cc. injections over a period of five weeks. The 25,822 injections were given by 58 physicians, assisted by 28 nurses, 24 state personnel, and 140 volunteer workers. No report on the study has been made as yet.

Diphtheria dropped from 224 cases the previous year to 199 for this year. This is the second successive year showing a reduction. Perhaps the constant emphasis on education and inoculations is beginning to pay dividends.

Typhoid fever showed a little improvement but 63 cases are still much too many. More education and booster inoculations are needed to control this disease.

The gamma globulin program against infectious hepatitis is beginning to pay off since the number of cases reported, 441, was less than 50 per cent of the previous year's reported cases.

Another rabies death was reported for the year. This makes the second year in a row

when a death from this disease has been reported.

There were 5,291 cases of cancer reported, with 600 of these being treated in the state tumor clinics. Although 1,348 applications for state aid were received, only 1,291 were eligible, with 1,093 of these actually reporting for clinic services.

The mass x-ray program was carried to five counties, with 57,723 individuals x-rayed. An additional 19,643 persons were x-rayed in spot surveys in 15 counties. All films were read for tuberculosis, heart disease, and other lung pathology. Among these 77,366 individuals were found 2,282 tuberculosis suspects, 462 with other lung pathology, and 841 with suspected heart diseases. In the diagnostic clinics 43,741 people were x-rayed and 749 of these were found to have tuberculosis.

Spot blood test surveys for syphilis in 15 counties showed 13,913 people tested, with 364 provisionally reported as positive. From all sources, 2,033 cases of syphilis were reported which compares more favorably with 10 years ago when 15,265 cases were reported.

SANITATION

PUBLIC WATER SUPPLIES

Fifty-two major projects were completed during the year at a cost of approximately four and one-quarter million dollars. Upon completion of a project, a usage permit is issued if it has been constructed in accordance with approved plans and specifications. Permits to construct were issued for 43 projects to cost approximately four and one-half million dollars. The review of plans and specifications and conferences with consulting engineers regarding the water supply projects as referred to above constitute an important phase of the two engineers' work in the Division of Water Supplies.

A major activity is the general supervision of the 336 public water supplies on record, serving approximately two million people. Nine new water works supplies were completed and put into operation during the year. Two supplies were removed from the list due to the fact that they were serving less than 50 people. To carry out the State Board of Health's responsibility in connection with water supply supervision, 271 of the water plants were visited once, 18 were visited twice, seven were visited three times, and two were visited four times during the year, thus making a total of 298 plants visited. During these visits the general condition of the system, operating procedure, and bacteriologic and chemical quality of the water are noted. At the time of the visit the operating personnel are given any necessary instructions in proper operational procedures and the responsible officials are conferred with regarding water works problems and needs. As a further control of quality, the engineers reviewed the reports of bacteriologic analyses of 20,773 samples submitted to the Bureau of Laboratories. When the interpretation of the reports indicated the need, instructions were given the water works personnel so that the situation causing the unsatisfactory sample could be corrected.

The extremely high temperatures during the summer and fall of 1954 and the severest drought on record in Alabama forced attention on all public water supplies throughout the State. The increased per capita consumption, the abnormal growth of many of our towns and cities, and the demand for water for air conditioning and lawn sprinkling placed a tremendous load on many of the supplies. Never before in the history of the State has the need for an adequate source of supply and treatment and distribution facilities been more forcefully brought to the attention of the public. The acute shortage of sources of supply in Auburn, Albertville, Russellville, Sylacauga and Tuskegee were of statewide interest. Approximately 20 other towns and cities experienced water shortages for various periods of duration; some were due to the failure of sources of supply and others due to the lack of adequate filtration and distribution facilities.

Tuscaloosa and Sheffield continued to be the only supplies practicing fluoridation. Several others gave consideration to the addition of fluorine and the subject continues to be much discussed.

The urgent need for additional personnel for water supply work increased during the year. The number of semipublic and school water supplies, serving many thousands of people but receiving little or no supervision from the State Health Department, continued to increase rapidly. Phases of the work such as promotion of protected private water supplies had to be neglected due to lack of personnel.

The annual Short Course School for water and sewage works personnel and the meeting of the Alabama Water and Sewage Association were held in June at the Alabama Polytechnic Institute, Auburn, Alabama. This school and meeting, sponsored by the State Health Department, the University of Alabama and the Alabama Polytechnic Institute, were well-attended. The Bureau of Sanitation has taken a leading role in this work since the school was organized in 1946. The Bureau, in addition, has assumed the responsibility of organizing and editing the Association's quarterly "Official Bulletin."

Water Division engineers continued to cooperate with the U. S. Public Health Service in the program of certifying supplies for use by interstate carriers. They also aided in the training of new sanitation officer personnel.

GENERAL SANITATION

During 1954 there were approved by the county sanitation officers, and reported to the Bureau of Sanitation, 1,106 pit privies, 7,207 septic tanks, and 8,748 sewer connections, a total of 17,061 new units of sanitation. This sanitation served 106,734 people of the State. A total of 638 sanitation units, serving a population of 3,826, was restored to former usefulness and protection to the public health. It is thus seen that 110,560 people were benefited by the 17,699 new or restored installations.

The county sanitation officers are to be commended for their efforts on sanitation programs. It is gratifying to see that, in the face of the varied demands for his time on other environ-

mental sanitation programs, the sanitation officer's interest in excreta disposal has not slackened. In fact, 2,944 more sanitation units were approved and reported to the Bureau of Sanitation during the year than in 1953. The county sanitation officers should derive great satisfaction from their accomplishments. They should, however, continue to appraise their work to determine ways and means of increasing their accomplishments in the rural areas.

Cooperation with the various federal agencies (F. H. A., Veterans Administration and Farmers Home Administration) was continued in the interest of sanitation. Certain problems in connection with inspection reports were discussed with the Federal Housing Administration and field personnel were advised of conclusions reached.

Research on sanitation was continued and very encouraging results have been obtained. Reports on this work were published during the year. The preparation of a supplement to Bulletin S-1 is now in progress and should be completed during the coming year.

INSPECTION ACTIVITIES

According to the public health laws and regulations of Alabama, this Division has specific or implied responsibility for the inspection and enforcement of regulations governing the operation of approximately 18,938 establishments. These include 150 pasteurization plants and receiving stations, 2,600 dairies, 158 ice cream manufacturing establishments, 13,000 food establishments, 99 slaughter houses, 94 carbonated beverage plants, 69 poultry processing plants, 14 crab meat and shrimp cooking plants, 40 oyster shucking plants, 151 bakeries, 1,457 barber shops, 746 beauty shops, 194 hotels, and 164 tourist courts.

Although sanitation personnel in 64 of the 67 counties participate in many of these programs, the limitation of technical and supervisory assistance at the state level has prevented the development of any one phase of these public health programs throughout the State. In 1953, 16 milk sheds were surveyed with only four being rated 90 or above, which is the acceptable standard for milk sanitation. Of the 10 milk sheds surveyed and rated in 1954, only one failed to attain the acceptable rating of 90. Information received from the County Health Departments revealed that only 10 counties have a countywide milk code and that 21 counties have no regulations whatsoever regarding the production, processing, distribution and sale of milk and milk products. The need for statewide regulatory power is evident. Food sanitation ratings were made in 27 counties in 1951, nine in 1952, 18 in 1953 and four in 1954. In 1946 every county that had a food sanitation program was surveyed, including 9,000 joint state and county inspections as compared with 4,000 in 1954.

The interstate shipment of milk and other food products has developed into a situation that will allow Alabama to become a dumping ground for inferior products if a system is not adopted and enforced by the State and County Health Departments.

"Regulations Governing the Construction, Equipment, and Operation of Poultry Slaughter Houses and Processing Plants" were adopted January 13, 1954 by the State Committee of Public Health and at the present time only eight of these establishments are not in compliance with the regulations.

An Act which states in part that "it shall be unlawful thereafter for the judge of probate of said county, or for the city clerk of said municipality, to accept payment for, or to issue, a privilege license for the operation of any establishment governed by said regulations, unless the applicant for said license is in possession of a valid permit issued by the health officer for the operation of said establishment" was duly passed and approved September 17, 1953. Although this permit system is not being used in all of the counties, it is anticipated that this one Act will provide the basis of operation for all food establishments subject to the present regulations within the State.

INDUSTRIAL HYGIENE

The principal activities of the Division of Industrial Hygiene during 1954 consisted of the completion of the study of the dust problem in the marble and granite cutting industry throughout the State and a statewide study of radiation hazards in connection with the use of fluoroscopic shoe-fitting machines. The results were compiled and reports prepared on each of these studies.

During the year 100 plant visits were made to 84 establishments. Some of the visits were made at the request of County Health Officers to recheck shoe-fitting machines.

Laboratory and field determinations included dust counts, free silica analyses, lead, mercury and arsenic in urine determinations, hydrogen sulfide and carbon monoxide determinations, velocity measurements, radiation intensities, and others.

VECTOR CONTROL

The Division of Vector Control provides advisory services pertaining to the control of insects and rodents of public health importance and to the abatement of insanitary conditions closely related to the production of mosquitoes, rats and flies. It also has a regulatory function in the administration of the regulations governing the impounding of waters.

There were 28 major impoundages under supervision during 1954. The extreme drought resulted in unusually low water levels in most of these lakes, and mosquito production was generally low. Certain phases of construction of Demopolis Dam necessitated the closing of the river to navigation for a period during midsummer. In order to reopen the river as quickly as possible following completion of the dam, an abnormal amount of water was stored in Bankhead Lake for several weeks, resulting in unusually high *Anopheles quadrimaculatus* production in that lake. After the release of this surplus water to impound Demopolis reservoir sufficiently to restore navigation, heavy breeding occurred in some portions of the new lake.

Larvicide was applied by airplane on portions of both lakes. Some larvicing was done also on Bayview, Martin, Purdy, Pickwick, Wheeler and Guntersville Lakes.

There was much activity throughout the year in the construction of minor impoundments. The number of such projects on record increased from 7,164 to 7,998.

Insecticidal programs financed by counties and municipalities were approximately equal in scope to those operated in 1953. There was a slight reduction in residual house treatments, but a considerable increase in municipal operations employing outdoor spot treatments and space spraying. In every urban situation surveyed by this Division, basic sanitary measures were urged as being the foundation of successful fly control. Mosquito problems were subnormal through most of the season, but a number of towns experienced trouble during the late summer with *Culex quinquefasciatus* mosquitoes breeding in ditches carrying sewage or other organic wastes. One very unusual mosquito problem investigated by this Division involved the breeding of salt-marsh mosquitoes in water pumped from salt wells.

Locally financed programs against rats and rat fleas, primarily for murine typhus control, continued on approximately the same scale as in 1953, although no operational assistance was received from the U. S. Public Health Service. The use of Warfarin increased while there was some reduction in the quantities of other rodenticides used.

At the end of the year 10 cities were operating sanitary landfills for garbage disposal or had purchased the necessary equipment for doing so. These and a number of other cities have also effected some improvements in the storage and collection of refuse. That sanitary handling and disposal of garbage is an essential and expensive municipal service gains increasing recognition. Several cities have inaugurated a fee system for financing this service, with varying degrees of success. It is evident that in some cities a thorough engineering analysis of the operation would reveal means for greatly improving sanitation, with little or no increase in costs.

The services of the U. S. Public Health Service entomologist, who had worked in this Division for the past six years, were withdrawn in June 1954. This loss necessarily curtailed some of the services previously rendered.

DRAFTING

The work of the Drafting Section reflects graphically the various activities of the State Health Department. During the year 1954 the drafting room was the hub of considerable work emanating from the various units of the Health Department, although the lack of sufficient personnel curtailed the amount of work actually needed. Every effort was made to meet the requirements from all sources.

Compared with some of the past years the work in 1954 actually surpassed other years in quantity of work assignments. However, the quantity of work produced, though important

in the reflection of man-hours, does not meet the needs for the variety of illustrative materials which are constantly being requested of the Drafting Section. Such material requires thought and time for planning, as well as for the actual work involved. The recently installed reproduction unit has created additional demands on the Drafting Section.

In September the Bureau of Sanitation moved from the building in which it had been located for approximately seven years into the new State Office Building. Considerable time was involved in the preparation of the properties of the Drafting Section for moving. The storage of water and sewer plans for the Department's files which are held in escrow have presented a big problem for many years. It was felt that a more adequate and satisfactory system of filing should be studied before the Department moved into new quarters. A separate room was provided for the storage of these plans. A storage compartment was designed and built to specifications drawn up in the drafting room.

A two-deck rack of suitable dimensions to accommodate the water and sewer plans was built. The back and top were covered with masonite and sliding doors completed the compartments. The simple device for hanging the plans were 30-inch lengths of heavy-duty curtain rods with three slides for attaching the plans by means of drapery hooks. The plans were indexed numerically and alphabetically and grouped together according to city and plant identification. As it was important to keep each group of plans to an approximate three-fourth inch thickness, a considerable amount of work was involved in the processing. When assembled, a three-inch heavy manila gummed tape binding was applied, three brass eyelets were bradded in the binding, curtain hooks inserted in each eyelet, and the plans were then hung. The result of this undertaking has been of great value to the Department in the matter of filing and withdrawing the water and sewage plans.

The technical library was reorganized and all bound volumes reallocated to the general library of the State Health Department. It is planned to keep only the current yearly subscriptions of these magazines in circulation among the engineering personnel, after which these will be bound and placed in the main library.

A total of 115 permanent tracings were made during the year. In addition, work on posters, placards, stencils and other illustrative material made the year 1954 one of the busiest and best in many years.

VITAL STATISTICS ACTIVITIES

A splendid health record for 1954 is reflected by an unprecedented low general death rate. Mortality from respiratory diseases was unusually low. Infant and maternal mortality dropped to new record low rates.

The Bureau of Vital Statistics received more than 153,000 pieces of mail concerning vital statistics. Fees amounting to \$40,260 were collected for record certification services. A total of 85,036 certified copies of vital records was issued,

including 5,418 gratuitous copies issued on request of the Veterans Administration. In 46,986 other transactions, confirmations of record contents were furnished for the many needs involving proof of age, citizenship, family relationship and others.

Original vital records, totaling 129,248 were filed in 1954 for the following events: 81,827 live births, 25,982 deaths, 1,882 fetal deaths, and 19,557 marriages. In addition, 9,288 transcripts of divorce decrees and 39,114 reports of pre-marital physical examinations and blood tests were recorded. New certificates were prepared for 1,118 adoptions and 657 legitimations, and 13,742 delayed certificates of birth were filed.

The Records Division processed 9,255 correction affidavits in 1954. A total of 4,145 queries was mailed to physicians, hospitals and other local sources for the purpose of completing and correcting death certificates. Satisfactory responses were received in 3,758 cases. Special queries were made on 781 deaths reported as accident fatalities. Accident information was exchanged with the Department of Public Safety, State Fire Marshal, National Safety Council, and several local police jurisdictions.

Although the total volume of registration and services decreased slightly in 1954, the Bureau of Vital Statistics experienced a busy year. New office quarters were occupied which are more comfortable and promote more effective and efficient operation. Record services constituted the major part of the Bureau's work. However, numerous requests were fulfilled for statistical information needed by research foundations, educators, students, government agencies and interested individuals.

VITAL STATISTICS TRENDS

Deaths

The general rate of mortality dropped from 8.4 in 1953 to a record low of 8.1 per 1,000 population in 1954. The provisional figures show a numerical decline in the number of deaths (25,982 last year compared with 26,758 in 1953).

Infant Deaths

A total of 2,733 babies less than one year old died in 1954. More than two-thirds (1,893) of the infants died during the first month of life. The infant mortality rate of 33.4 per 1,000 live births decreased slightly from the 1953 rate (33.9). Last year 766 infants died from birth injuries, asphyxia and infections, at a rate of 9.4 per 1,000 live births. This was an increase from 1953 when 749 died from these causes at a rate of 9.1 per 1,000 live births. Immaturity at birth resulted in 587 deaths, a substantial reduction from the 682 such deaths in 1953. The 11 whooping cough deaths last year increased from four during 1953. Only 22 deaths from gastrointestinal disorders show a remarkable reduction from 133 infant deaths due to this cause in 1953.

Maternal Deaths

A further marked reduction was made last year in mortality from maternal causes. Diseases of pregnancy and childbirth caused 103 deaths at a record low rate of 12.3 per 10,000 deliveries.

Fetal Deaths

A further significant reduction was experienced last year in the fetal death rate. A total of 1,882 fetal deaths occurred at a rate of 22.5 per 1,000 deliveries, as compared with 23.3 per 1,000 deliveries in 1953.

PRINCIPAL CAUSES OF DEATH

The 10 leading causes of death in 1954 account-

ed for 76.2 per cent of all deaths. There was a net reduction of 264 in the death toll taken by these major killers. Rank order in importance did not change for this group. The falling mortality rate for tuberculosis continued. The accident fatality rate dropped again. Deaths due to pneumonia reached a record low rate. Although still the leading cause of death, heart diseases accounted for fewer deaths in 1954.

TEN LEADING CAUSES OF DEATH

Causes	1954		1953		1948-1952 (Average)	
	Provisional	Number Rate*	Provisional	Number Rate*	Provisional	Number Rate*
Diseases of heart	8,208	256.1	8,214	259.1	7,700	250.9
Vascular lesions	3,416	106.6	3,380	106.6	3,068	100.0
Cancer	3,125	97.5	3,074	96.9	2,834	92.3
Accidents	1,836	57.3	1,855	58.5	1,872	61.0
Pneumonia	805	25.1	948	29.9	1,049	34.2
Immaturity	587	7.2**	682	8.3**	805	9.6**
Nephritis	563	17.6	599	18.9	997	32.5
Diseases of arteries	482	15.0	474	14.9	344	11.2
Tuberculosis	415	13.0	467	14.7	819	26.7
Homicide	362	11.3	370	11.7	424	13.8

*Rate per 100,000 population

**Rate per 1,000 live births

Heart disease, vascular lesions, nephritis and immaturity are not comparable to five-year average due to change in coding procedures in 1949.

Communicable Diseases

In spite of a decrease by 54.4 per cent in influenza deaths last year, this disease maintained its customary position as the leading cause of death among communicable diseases listed. There were no deaths in 1954 attributed

to typhoid fever and malaria. Mortality from the principal communicable diseases of childhood—measles, diphtheria, whooping cough and scarlet fever—continued at a rather high rate although much below the rates of 10 years ago, reflecting growth and effectiveness in medical and public health services.

DEATHS ATTRIBUTED TO CERTAIN COMMUNICABLE DISEASES

Causes	1954		1953		1948-1952 (Average)	
	Provisional	Number Rate*	Provisional	Number Rate*	Provisional	Number Rate*
Influenza	178	5.6	390	12.3	258	8.4
Syphilis	97	3.0	104	3.3	182	5.9
Poliomyelitis	30	0.9	26	0.8	24	0.8
Meningitis	29	0.9	46	1.4	27	0.9
Measles	19	0.6	4	0.1	28	0.9
Diphtheria	12	0.4	8	0.2	26	0.8
Whooping cough	11	0.3	4	0.1	40	1.3
Encephalitis	4	0.1	5	0.2	7	0.2
Scarlet fever	1	**	2	0.1	1	**
Erysipelas	1	**	1	**	2	0.1

*Rate per 100,000 population

**Rate less than 0.005

Births

The birth rate which produced 81,827 babies (25.5 per 1,000 population) in 1954 showed a further decline, but remained above the national average. The relatively high birth rate, a low general death rate, and the good prospect of further reductions in mortality all point to an increasing population and a longer life expectancy.

Marriage and Divorce

Marriage registration dropped to a new low figure of 19,557 in 1954. A current national report shows that Mississippi registered nearly 61,000 marriages last year. It is safe to assume that 10,000 of these couples were Alabama residents. The number of divorces (9,288) also decreased.

Part III of the Board's report was approved, as was the report as a whole.

REVISION OF THE ROLLS

The next order of business being the revision of the Rolls of the Association, the Secretary was directed by President Donald to proceed without interruption in the absence of objection. As a preface to the revision of the Roll of County Societies, the Secretary said:

"County Medical Societies, to comply with the Constitution, must meet certain obligations. First, an annual report, on forms furnished by the Association, must be filed with the Secretary; second, each society is expected to be represented at the annual meeting by at least one delegate; and third, dues are to be remitted for each member not exempt from payment of dues."

With this foreword, the revision proceeded.

1. Revision of the Roll of County Societies:

(a) County societies which have fulfilled all their constitutional obligations: Autauga, Baldwin, Barbour, Bibb, Blount, Bullock, Chambers, Chilton, Choctaw, Clarke, Clay, Coffee, Covington, Crenshaw, Cullman, Dale, Dallas, DeKalb, Elmore, Escambia, Fayette, Franklin, Geneva, Henry, Houston, Jackson, Jefferson, Lauderdale, Lee, Lowndes, Macon, Madison, Marion, Marshall, Mobile, Monroe, Montgomery, Morgan, Perry, Pickens, Pike, Randolph, Shelby, Talladega, Tallapoosa, Tuscaloosa, Walker, and Wilcox. Total 48.

(b) County societies partially delinquent: In that they are not represented by delegates at this meeting of the Association—Butler, Calhoun, Cherokee, Cleburne, Colbert, Conecuh, Etowah, Lamar, Lawrence, Limestone, Marengo, St. Clair, Sumter, Washington, and Winston. Total 15.

(c) County societies totally delinquent: Coosa, Greene, Hale, and Russell. Total 4.

No objection being made as to the correctness of this report, the President directed the Secretary to write the societies delinquent in report and dues and, failing to remove the delinquencies, to call the societies to the attention of the State Board of Censors.

Whereupon the Roll of County Medical Societies was declared closed until the next annual session of the Association.

The Secretary then said:

"In revising the Roll of Counsellors, five lists are prepared, designated respectively: (1) the schedule of counsellors clear on the books; (2) the schedule of delinquent counsellors—counsellors delinquent in attendance or dues, or against whom charges may be pending; (3) the schedule of miscellaneous counsellors—counsellors who have died since the last annual meeting, or have

offered their resignation, or have moved out of the state, or out of their respective congressional districts; (4) the schedule of active counsellors of twenty years' standing; and (5) the schedule of counsellors-elect who have qualified as provided in the Constitution."

With such preface, the revision of the rolls was continued.

2. Revision of the Roll of Counsellors:

(a) Counsellors clear on the books: Abbott, Acker, Allgood, Barber, Barnes, Baumhauer, Bell, Belue, Boyd, Bragg, Branch, Brown, Brunson, Carraway, Cloud, Clyde, Cocke, Collier, Conwell, Crawford, Darby, Daves, Davis, Denison, Dodson, Donald, D. C. and J. M., Finney, Foshee, Gibson, Gill, Gipson, Givhan, Godard, Golden, Grote, Guest, Hill, R. C. and R. Lee, Hollis, Holloway, Isbell, Jackson, Johnson, Jones, Kennedy, Killingsworth, Leatherwood, Lisenby, Littlejohn, Mazyck, McCown, McNease, Meadows, Moore, Morgan, J. O., Neal, Newton, Owings, Parker, L. L. and Robert, Partlow, Riggs, Roan, Robinson, Samford, Segrest, Sherrill, Simpson, Smith, Stabler, Stallworth, Timberlake, Treherne, Underwood, Waters, Watson, White-side, Wilkerson, Wilson, F. C. and W. E., Woodruff.

In the absence of objection, the President ordered passed the names of these Counsellors reported as clear on the books.

(b) Delinquent Counsellors: None.

(c) Miscellaneous Counsellors:

- (1) Life Counsellors who have died: Dr. P. M. Lightfoot.
- (2) Active Counsellors who have died: Dr. J. C. Gladney.
- (3) Active Counsellors who have moved: Dr. J. Ralph Morgan.
- (4) Active Counsellors who have resigned: None.

(d) Active Counsellors of twenty years' standing: Drs. E. M. Chenault, Rayford Hodges, W. H. Riser, V. J. Thacker, and J. M. Weldon.

(e) Counsellors-elect who have properly qualified: Drs. J. H. Armstrong, W. P. Baston, John M. Chenault, John W. Davis, Jr., Hugh E. Gray, J. P. Howell, A. D. Matthews, E. G. Moore, Paul Nickerson, J. R. Shell, and T. B. Woods.

The President directed that the names of the deceased Counsellors be transferred to the Book of the Dead; that Drs. E. M. Chenault, Rayford Hodges, W. H. Riser, V. J. Thacker, and J. M. Weldon be transferred to the Roll of Life Counsellors; and that to the Roll of Active Counsellors there be added Drs. J. H. Armstrong, W. P. Baston, John M. Chenault, J. W. Davis, Jr., H. E. Gray, J. P. Howell, A. D. Matthews, E. G. Moore, Paul Nickerson, J. R. Shell, and T. B. Woods.

Whereupon the Roll of Counsellors was declared closed until the next annual session of the Association.

3. Revision of the Roll of Correspondents:

Dr. Chas. W. Mayo, Rochester, Minn., who delivered the 1955 Jerome Cochran Lecture, was added to the Roll of Correspondents.

4. Revision of the Roll of Officers:

Dr. Grady O. Segrest, Mobile, was chosen President-elect, Dr. S. W. Windham, Dothan, Vice-President of the Southeastern Division for a term of four years, Dr. Douglas L. Cannon, Secretary-Treasurer for a term of five years and Drs. E. V. Caldwell, Huntsville, and J. G. Daves, Cullman, members of the State Board of Censors for terms of five years.

Committees constitutionally provided to nominate Counsellors brought in the following nominations, and the nominees were elected by the Association: 1st District—Drs. J. E. Moss and R. D. Neal; 2nd—Dr. Robert Parker; 3rd—Drs. C. L. Spann and Arthur Mazyck; 5th—N. A. Wheeler, Jr.; 6th—W. J. B. Owings; 7th—M. S. Whiteside and W. T. Snoddy, Jr.; 8th—J. C. Bragg, M. E. Barrett, M. H. Lynch, and A. M. Roan; 9th—R. E. Cloud, E. B. Glenn, W. S. Littlejohn, and E. Bryce Robinson.

Miscellaneous Business

Expression of Thanks

By a rising vote, the gratitude of the Association was made known to the members of the Montgomery County Medical Society for their many courtesies during the meeting; and to the newspapers and radio stations of Montgomery for their coverage of the several sessions. The staff of the Whitley Hotel, headquarters hotel, was also thanked for the cheerfulness with which the facilities of the hotel were made available.

Meeting of 1956

On invitation extended by Dr. Dan Donald the meeting of 1956 is to be in Birmingham, April 19, 20, and 21.

Installation of Officers

President-elect Frank M. Chenault was installed as President and, in accepting the gavel, presented the retiring President, Dr. Joe Donald, his past-president's pin. Dr. Chenault then installed his fellow officers, Drs. E. V. Caldwell and J. G. Daves as Censors, S. W. Windham as Vice-President of the Southeastern Division, Dr. Douglas L. Cannon as Secretary-Treasurer, and declared the meeting adjourned.

THE ROLL OF COUNSELLORS REVISION OF 1955 LIFE COUNSELLORS

Name and Address	Date of Election
Alison, James F., Selma (4)	1934
Alison, Samuel Beekman, Minter (4) ..	1919
Anderson, Thos. J., Greensboro (6) ..	1933
Ashcraft, Virgil Lee, Reform (7) ..	1919
Bedsole, James G., Jackson (1) ..	1922
Burdesaw, Shelby L., Headland (3) ..	1921
Caldwell, Edwin Valdivia, Huntsville (8)	1918
Cannon, Douglas L., Montgomery (2) ..	1928
Carter, William R., Repton (2) ..	1934
Chenault, Erskine M., Decatur (8) ..	1935
Chenault, Frank L., Decatur (8) ..	1917
Craddock, French H., Sylacauga (4) ..	1932
Dabney, Marye Y., Birmingham (9) ..	1923
Eskew, M. H., Uniontown (6) ..	1934
Garber, James R., Birmingham (9) ..	1932
Granger, Frank G., Ashford (3) ..	1928
Gresham, George L., Opp (2) ..	1913
Gresham, Walter A., Russellville (7) ..	1933
Harris, Seale, Birmingham (9) ..	1903
Harrison, William Groce, Birmingham (9) ..	1896
Hayes, Charles Philips, Elba (3) ..	1920
Hayes, Julius Pope, Clanton (6) ..	1920
Heacock, Jos. D., Birmingham (9) ..	1912
Heflin, Wyatt, Birmingham (9) ..	1893
Hill, Robert L., Winfield (7) ..	1924
Hodges, Rayford, Scottsboro (8) ..	1935
Howell, William Edward, Haleyville (7) ..	1918
Howle, James Augustus, Hartselle (8) ..	1895
Hubbard, T. Brannon, Montgomery (2) ..	1924
Jackson, Alva A., Florence (8) ..	1918
Lester, Belford S., Birmingham (9) ..	1923
Lull, Cabot, Birmingham (9) ..	1919
Martin, John A., Montgomery (2) ..	1933
McAdory, Edward Dudley, Cullman (7) ..	1920
McCall, Daniel T., Mobile (1) ..	1923
McLeod, John Calvin, Bay Minette (2) ..	1911
Oswalt, G. G., Mobile (1) ..	1929
Parker, Lorenzo D., Andalusia (2) ..	1933
Perdue, James D., Mobile (1) ..	1933
Ralls, Arthur W., Gadsden (5) ..	1919
Riser, William H., Lafayette (5) ..	1935
Rucker, Edmon W., Birmingham (9) ..	1922
Salter, Wilburn M., Anniston (4) ..	1934
Sankey, Howard J., Birmingham (9) ..	1914
Scott, Walter F., Birmingham (9) ..	1922
Searcy, Harvey Brown, Tuscaloosa (6) ..	1923
Smith, Gordon R., Ozark (3) ..	1934
Taylor, Woodie R., Town Creek (8) ..	1926
Thacker, Vincent J., Dothan (3) ..	1935
Thigpen, Charles Alston, Montgomery (2) ..	1900
Walls, J. J., Alexander City (5) ..	1924
Weldon, Joseph M., Mobile (1) ..	1935
Wilkinson, David Leonidas, Tuscaloosa (6) ..	1902
Total 53	

ACTIVE COUNSELLORS

Those marked with a † are serving last terms of six years.

Those marked with an asterisk (*) are serving second terms of seven years.

Those without a symbol are serving first terms of seven years.

The numeral is the number of the congressional district.

	Date of Elec- tion	Expri- ation
Abbott, Chas. E., Tuscaloosa (6) ..	†1952 to 1958	
Acker, Charles T., Montevallo (6) ..	†1951 to 1957	
Allgood, Homer W., Fairfield (9) ..	*1951 to 1958	

Armstrong, James H., Selma (4)	1954 to 1961	Smith, J. Donald, Eutaw (6)	1953 to 1960
Barber, William J., Butler (1)	*1949 to 1956	Stabler, Lorenzo V., Greenville (2)	†1951 to 1957
Barnes, J. Mac Ilwaine, Montgomery (2)	1949 to 1956	Stallworth, William A., Beatrice (1)	†1951 to 1957
Baston, William P., Moundville (6)	1954 to 1961	Timberlake, Landon, Birmingham (9)	1952 to 1959
Baumhauer, Jacques H., Mobile (1)	1949 to 1956	Treherne, Alfred J., Atmore (2)	1953 to 1960
Bell, J. Mac, Mobile (1)	*1950 to 1957	Underwood, S. Sellers, Birmingham (9)	1949 to 1956
Belue, Julius O., Athens (8)	†1951 to 1957	Waters, Hinton W., Opp (2)	†1953 to 1959
Boyd, Frank H., Opelika (3)	†1953 to 1959	Watson, Jerre, Anniston (4)	†1952 to 1958
Bragg, John C., Decatur (8)	†1955 to 1961	Whiteside, Maurice S., Cullman (7)	†1955 to 1962
Branch, John L., Montgomery (2)	*1951 to 1958	Wilkerson, Arthur F., Marion (6)	1950 to 1957
Brown, Elridge T., Cleveland (7)	†1951 to 1957	Wilson, Frank C., Birmingham (9)	*1949 to 1956
Brunson, Emmett T., Samson (3)	†1950 to 1956	Wilson, William E., Russellville (7)	1953 to 1960
Carraway, Chas. Newton, Birmingham (9)	*1949 to 1956	Woodruff, Gerald G., Anniston (4)	†1954 to 1960
Chenault, John M., Decatur (8)	1954 to 1961	Woods, Thomas B., Dothan (3)	1954 to 1961
Cloud, Robert E., Ensley (9)	†1955 to 1961	Total 93	
Clyde, Wallace A., Birmingham (9)	*1954 to 1961		
Cocke, William T., Jefferson (1)	†1953 to 1959	COUNSELLORS-ELECT	
Collier, James P., Tuscaloosa (6)	†1954 to 1960		
Conwell, H. Earle, Birmingham (9)	*1949 to 1956	Barrett, Maurice E., Decatur (8)	1955 to 1962
Crawford, Jas. M., Arab (5)	1950 to 1957	Glenn, E. Byron, Birmingham (9)	1955 to 1962
Darby, Henry A., Athens (8)	*1954 to 1961	Lynch, M. H., Scottsboro (8)	1955 to 1962
Daves, James G., Cullman (7)	†1952 to 1958	Moss, John E., Mobile (1)	1955 to 1962
Davis, John W., Jr., Montgomery (2)	1954 to 1961	Snoddy, William T., Jasper (7)	1955 to 1962
Davis, Lewis C., Gordo (7)	†1953 to 1959	Spann, Chas. L., Dothan (3)	1955 to 1962
Denison, George A., Birmingham (9)	*1950 to 1957	Wheeler, N. A., Jr., Lafayette (5)	1955 to 1962
Dodson, Robert B., Cullman (7)	*1951 to 1958	Total 7	
Donald, Dan C., Birmingham (9)	*1951 to 1958		
Donald, Joseph M., Birmingham (9)	*1953 to 1960		
Finney, James O., Gadsden (5)	*1954 to 1961		
Foshee, Reuben A., Alexander City, Rt. 4 (5)	*1951 to 1958		
Gibson, Edward Lee, Enterprise (3)	†1954 to 1960		
Gill, Daniel G., Montgomery (2)	*1954 to 1961		
Gipson, Amos C., Gadsden (5)	*1951 to 1958		
Givhan, Edgar G., Jr., Birmingham (9)	*1953 to 1960		
Godard, Claud G., Fairhope (2)	*1949 to 1956		
Golden, William C., Clanton (6)	*1951 to 1958		
Gray, Hugh E., Anniston (4)	1954 to 1961		
Grote, Carl A., Huntsville (8)	†1951 to 1957		
Guest, Reuben J., Jr., Ft. Payne (5)	1953 to 1960		
Hill, Robert C., York (6)	†1950 to 1956		
Hill, R. Lee, Haleyville (7)	†1953 to 1959		
Hollis, Murray C., Winfield (7)	1951 to 1958		
Holloway, H. Sellers, Notasulga (3)	1951 to 1958		
Howell, Julian P., Selma (4)	1954 to 1961		
Isbell, Arthur L., Albertville (5)	†1954 to 1960		
Jackson, Albert C., Jasper (7)	†1954 to 1960		
Johnson, Gayle T., Mobile (1)	1953 to 1960		
Jones, J. Paul, Camden (1)	*1950 to 1957		
Kennedy, Hughes, Jr., Birmingham (9)	*1950 to 1957		
Killingsworth, Noah W., Brundidge (2)	†1953 to 1959		
Leatherwood, Elbert F., Hayneville (2)	*1951 to 1958		
Lisenby, J. Otis, Atmore (2)	*1950 to 1957		
Littlejohn, Wilmot S., Birmingham (9)	†1955 to 1962		
Matthews, Augustus D., Ozark (3)	1954 to 1961		
Mazyck, Arthur, Dothan (3)	*1955 to 1962		
McCown, William G., Huntsville (8)	*1954 to 1961		
McNease, Benjamin W., Fayette (7)	*1954 to 1961		
Meadows, James A., Birmingham (9)	*1950 to 1957		
Moore, C. W. C., Talladega (4)	*1951 to 1957		
Moore, Ernest G., Tallassee (4)	1954 to 1961		
Morgan, J. Orville, Gadsden (5)	†1953 to 1959		
Neal, Ralph D., Grove Hill (1)	*1955 to 1962		
Newton, George E., Prattville (4)	1953 to 1960		
Nickerson, Paul, Sylacauga (4)	1954 to 1961		
Owings, W. J. B., Brent (6)	†1955 to 1961		
Parker, Leslie L., Andalusia (2)	1953 to 1960		
Parker, Robert, Montgomery (2)	*1955 to 1962		
Partlow, Rufus C., Tuscaloosa (6)	*1950 to 1957		
Riggs, Frank W., Montgomery (2)	*1950 to 1957		
Roan, Avery M., Decatur (8)	†1955 to 1961		
Robinson, E. Bryce, Fairfield (9)	*1955 to 1962		
Samford, Millard W., Opelika (3)	*1953 to 1960		
Segrest, Grady O., Mobile (1)	*1949 to 1956		
Shell, James R., Abbeville (3)	1954 to 1961		
Sherrill, John D., Birmingham (9)	†1953 to 1959		
Simpson, John W., Birmingham (9)	*1949 to 1956		

THE ROLL OF THE COLLEGE OF COUNSELLORS BY CONGRESSIONAL DISTRICTS

On this roll the names of the Counsellors are given by Congressional Districts. It is intended to serve as a guide in the election of new Counsellors, with a view to the distribution of them in approximate proportion to the number of members in the several districts. It is not considered to be good policy, and it is not considered to be fair and right, to give a few large towns greatly more than their pro rata share of Counsellors. The calculations are based on the nearest whole number. On April 1, 1955, there were 1956 members in the County Medical Societies. That would give one Counsellor to every 20 members. The membership set forth in the following is that of April 1.

FIRST DISTRICT

Names of Counsellors—W. T. Cocke, Marengo; W. J. Barber, Choctaw; R. D. Neal, Clarke; J. H. Baumhauer, G. O. Segrest, J. E. Moss, Gayle T. Johnson and J. Mac Bell, Mobile; W. A. Stallworth, Monroe; J. Paul Jones, Wilcox.

County	Members	Counsellors
Choctaw	6	1
Clarke	11	1
Marengo	12	1
Mobile	201	5
Monroe	9	1
Washington	3	0
Wilcox	9	1
	251	10

SECOND DISTRICT

Names of Counsellors—C. G. Godard, Baldwin; L. V. Stabler, Butler; L. L. Parker and H. W. Waters, Covington; J. O. Lisenby and A. J. Treherne, Escambia; E. F. Leatherwood, Lowndes;

J. L. Branch, F. W. Riggs, J. M. Barnes, Robert Parker, D. G. Gill, J. W. Davis, Jr., Montgomery; N. W. Killingsworth, Pike.

County	Members	Councillors
Baldwin	23	1
Butler	9	1
Conecuh	8	0
Covington	26	2
Crenshaw	8	0
Escambia	17	2
Lowndes	4	1
Montgomery	139	6
Pike	15	1
	249	14

THIRD DISTRICT

Names of Councillors—E. L. Gibson, Coffee; A. D. Matthews, Dale; E. T. Brunson, Geneva; J. R. Shell, Henry; C. L. Spann, Arthur Mazyck, and T. B. Woods, Houston; F. H. Boyd and M. W. Samford, Lee; H. S. Holloway, Macon.

County	Members	Councillors
Barbour	12	0
Bullock	4	0
Coffee	11	1
Dale	10	1
Geneva	13	1
Henry	7	1
Houston	31	3
Lee	22	2
Macon	8	1
Russell	6	0
	124	10

FOURTH DISTRICT

Names of Councillors—G. E. Newton, Autauga; Hugh E. Gray, Jerre Watson and G. G. Woodruff, Calhoun; J. H. Armstrong and J. P. Howell, Dallas; E. G. Moore, Elmore; C. W. C. Moore and Paul Nickerson, Talladega.

County	Members	Councillors
Autauga	5	1
Calhoun	49	3
Clay	7	0
Coosa	3	0
Dallas	36	2
Elmore	11	1
St. Clair	8	0
Talladega	30	2
	149	9

FIFTH DISTRICT

Names of Councillors—N. A. Wheeler, Jr., Chambers; R. J. Guest, Jr., DeKalb; A. C. Gipson, J. O. Finney and J. O. Morgan, Etowah; A. L. Isbell and J. M. Crawford, Marshall; R. A. Foshee, Tallapoosa.

County	Members	Councillors
Chambers	16	1
Cherokee	2	0
Cleburne	3	0
DeKalb	13	1

Etowah	68	3
Marshall	24	2
Randolph	9	0
Tallapoosa	18	1

153 8

SIXTH DISTRICT

Names of Councillors—W. J. B. Owings, Bibb; W. C. Golden, Chilton; J. Donald Smith, Greene; W. P. Baston, Hale; A. F. Wilkerson, Perry; C. T. Acker, Shelby; R. C. Hill, Sumter; J. P. Collier, R. C. Partlow and C. E. Abbott, Tuscaloosa.

County	Members	Councillors
Bibb	5	1
Chilton	9	1
Greene	4	1
Hale	6	1
Perry	10	1
Shelby	17	1
Sumter	12	1
Tuscaloosa	67	3

130 10

SEVENTH DISTRICT

Names of Councillors—E. T. Brown, Blount; R. B. Dodson, J. G. Daves and M. S. Whiteside, Cullman; B. W. McNease, Fayette; W. E. Wilson, Franklin; M. C. Hollis, Marion; L. C. Davis, Pickens; A. C. Jackson and W. T. Snoddy, Jr., Walker; R. Lee Hill, Winston.

County	Members	Councillors
Blount	11	1
Cullman	20	3
Fayette	6	1
Franklin	12	1
Lamar	8	0
Marion	10	1
Pickens	12	1
Walker	26	2
Winston	11	1

116 11

EIGHTH DISTRICT

Names of Councillors—M. H. Lynch, Jackson; H. A. Darby and J. O. Belue, Limestone; W. G. McCown and C. A. Grote, Madison; M. M. Barrett, J. C. Bragg, A. M. Roan, and J. M. Chenault, Morgan.

County	Members	Councillors
Colbert	21	0
Jackson	8	1
Lauderdale	42	0
Lawrence	9	0
Limestone	13	2
Madison	39	2
Morgan	38	4

170 9

NINTH DISTRICT

Names of Councillors—J. D. Sherrill, R. E. Cloud, C. N. Caraway, H. Earle Conwell, J. W. Simpson, F. C. Wilson, G. A. Denison, Hughes Kennedy, Jr., J. A. Meadows, E. B. Glenn,

D. C. Donald, Joe M. Donald, E. G. Givhan, Jr., H. W. Allgood, W. A. Clyde, E. Bryce Robinson, W. S. Littlejohn, S. S. Underwood, and Landon Timberlake.

County	Members	Councillors
Jefferson	614	19

THE ROLL OF CORRESPONDENTS

"Distinguished members of the medical profession residing outside of the State, and Councillors of the Association, who after not less than ten years of faithful service may have resigned their councillorships, shall be eligible for election as Correspondents."

"Correspondents shall have the privilege of transmitting or presenting to the Association such communications, or scientific essays, as they may deem proper."—*From the Constitution.*

Name and Address	Date of Election
Andrew J. Coley, Oklahoma City	1909
Rudolph Matas, New Orleans	1921
Henry A. Christian, Boston	1921
H. A. Royster, Raleigh, N. C.	1926
G. Canby Robinson, Baltimore	1928
Russell L. Cecil, New York	1934
T. M. McMillan, Philadelphia	1938
George T. Pack, New York	1939
E. V. McCollum, Baltimore	1940
Harvey B. Stone, Baltimore	1942
Albert C. Furstenberg, Ann Arbor	1943
Alton Ochsner, New Orleans	1946
Reginald Fitz, Boston	1947
Andrew C. Ivy, Chicago	1948
Max Thorek, Chicago	1949
Paul D. White, Boston	1950
Emil Novak, Baltimore	1951
Richard Cattell, Boston	1952
Claude S. Beck, Cleveland	1954
Charles W. Mayo, Rochester, Minn.	1955

Mobile—Milton Columbus Baldridge	1889
Birmingham—Charles Higgs Franklin	1890
Huntsville—William Henry Sanders	1891
Montgomery—Benjamin James Baldwin	1892
Selma—James Thomas Searcy	1893
Birmingham—Thaddeus Lindley Robertson	1894
Mobile—Richard Matthew Fletcher	1895
Montgomery—William Henry Johnston	1896
Selma—Barckley Wallace Toole	1897
Birmingham—Luther Leonidas Hill	1898
Mobile—Henry Altamont Moody	1899
Montgomery—John Clarke LeGrande	1900
Selma—Russell McWhorter Cunningham	1901
Birmingham—Edwin Lesley Marechal	1902
Talladega—Glenn Andrews	1903
Mobile—Matthew Bunyan Cameron	1904
Montgomery—Capers Capehart Jones	1905
Birmingham—Eugene DuBose Bondurant	1906
Mobile—George Tighlman McWhorter	1907
Montgomery—Samuel Wallace Welch	1908
Birmingham—Benjamin Leon Wyman	1909
Mobile—Wooten Moore Wilkerson	1910
Montgomery—Wyatt Heflin Blake	1911
Birmingham—Lewis Coleman Morris	1912
Mobile—Harry Tutwiler Inge	1913
Montgomery—Robert S. Hill	1914
Birmingham—Benjamin Britt Simms	1915
Mobile—James Norment Baker	1916
Montgomery—Henry Green	1917
Birmingham—William Dempsey Partlow	1918
Mobile—Isaac LaFayette Watkins	1919
Anniston—James Somerville McLester	1920
Montgomery—Louis William Johnston	1921
Birmingham—Dyer F. Talley	1922
Mobile—Walter S. Britt	1923
Montgomery—W. W. Harper	1924
Birmingham—J. D. Heacock	1925
Mobile—C. A. Mohr	1926
Montgomery—A. L. Harlan	1927
Birmingham—John D. S. Davis	1928
Mobile—E. V. Caldwell	1929
Montgomery—L. E. Broughton	1930
Birmingham—W. G. Harrison	1931
Mobile—Toulmin Gaines	1932
Montgomery—Samuel Kirkpatrick	1933
Birmingham—James R. Garber	1934
Mobile—William M. Cunningham	1935
Montgomery—Charles A. Thigpen	1936
Birmingham—Lloyd Noland	1937
Mobile—E. S. Sledge	1938
Montgomery—Seale Harris, Sr.	1939
Birmingham—M. S. Davie	1940
Mobile—Samuel A. Gordon	1941
Montgomery—James M. Mason	1942
Birmingham—Harvey B. Searcy	1943
Montgomery—Fred W. Wilkerson	1944
Meeting Cancelled—Walter F. Scott	1945
Birmingham—Walter F. Scott	1946
Birmingham—Carl A. Grote	1947
Mobile—Jesse P. Chapman	1948
Montgomery—J. Paul Jones	1949
Birmingham—Frank C. Wilson	1950
Mobile—Joseph M. Weldon	1951
Montgomery—T. Brannon Hubbard	1952
Birmingham—B. W. McNease	1953
Mobile—J. Orville Morgan	1954
Montgomery—Joseph M. Donald	1955

SCHEDULE OF THE ANNUAL SESSIONS
AND PRESIDENTS SINCE THE RE-
ORGANIZATION IN 1868

Place and President	Year
Selma—Albert Galatin Mabry	1868
Mobile—Albert Galatin Mabry	1869
Montgomery—Richard Frazer Michel	1870
Mobile—Francis Armstrong Ross	1871
Huntsville—Thomas Childress Osborne	1872
Tuscaloosa—George Ernest Kumpe	1873
Selma—George Augustus Ketchum	1874
Montgomery—Job Sobieski Weatherly	1875
Mobile—John Jefferson Dement	1876
Birmingham—Edward Davies McDaniel	1877
Eufaula—Peter Bryce	1878
Selma—Robert Dickens Webb	1879
Huntsville—Edmond Pendleton Gaines	1880
Montgomery—William Henry Anderson	1881
Mobile—John Brown Gaston	1882
Birmingham—Clifford Daniel Parke	1883
Selma—Mortimer Harvey Jordan	1884
Greenville—Benjamin Hogan Riggs	1885
Anniston—Francis Marion Peterson	1886
Tuscaloosa—Samuel Dibble Seelye	1887
Montgomery—Edward Henry Sholl	1888

SECRETARIES OF THE ASSOCIATION

1852-1854	George A. Ketchum
1854-1855	R. Miller
1869-1873	Jerome Cochran
1874-1878	B. H. Riggs
1879-1892	T. A. Means
1893-1897	J. R. Jordan
1897-1904	G. P. Waller
1904-1906	L. C. Morris
1906-1915	J. N. Baker
1915-1923	H. G. Perry
1923-1924	Douglas L. Cannon
1924-1930	B. B. Simms
1930-1940	Douglas L. Cannon

TREASURERS OF THE ASSOCIATION

1854-1855	W. P. Reese
1869-1898	W. C. Jackson
1898-1915	H. G. Perry
1915-1939	J. U. Ray

SECRETARY-TREASURERS OF THE ASSOCIATION

1940-	Douglas L. Cannon
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SCHEDULE OF JEROME COCHRAN LECTURERS

- 1899—J. T. Searcy, Tuscaloosa—What Is Insanity?
- 1900—Wm. Osler, Baltimore—Not present.
- 1901—Wm. Osler, Baltimore—Not present.
- 1902—Nathan Bozeman, New York—Declined.
- 1903—George H. Price, Nashville—The History of Medicine.
- 1904—W. S. Thayer, Baltimore—Cardiac and Vascular Complications of Typhoid Fever.
- 1905—Robert Abbe, New York—The Problems of Surgery.
- 1906—Joseph Collins, New York—Arteriosclerosis.
- 1907—Nicholas Senn, Chicago—Final Triumph of Scientific Medicine.
- 1908—E. L. Marechal, Mobile—Absent.
- 1909—Lewellys F. Barker, Baltimore—Clinical Methods of Cardiac Investigation.
- 1910—Frank S. Meara, New York—Some Problems of Nutrition in Early Life.
- 1911—Rudolph Matas, New Orleans—Inflammatory Tuberculosis.
- 1912—Maurice H. Richardson, Boston—Elimination of Preventable Disasters from Surgery.
- 1913—L. L. Hill, Montgomery—Surgical Complications and Sequelae of Typhoid Fever.
- 1914—Frank Smithies, Chicago—Contributions of the Twentieth Century to the Better Understanding of Gastric Cancer.
- 1915—John B. Elliott, Jr., New Orleans—Abscess of Liver.
- 1916—Howard A. Kelly, Baltimore—Radium Therapy.
- 1917—Wm. J. Mayo, Rochester—Importance of Septic Infection in the Three Great Plagues.
- 1918—George E. Bushnell, Washington—The Army in Relation to the Tuberculosis Problem.
- 1919—George W. Crile, Cleveland, Ohio—Abdominal Surgery in Civil and Military Hospitals.
- 1920—Henry A. Christian, Boston—Bright's Disease With Special Reference to Its Treatment.
- 1921—J. Whitridge Williams, Baltimore—A Critical Review of Twenty-One Years' Experience with Caesarean Section.
- 1922—Chas. H. Mayo, Rochester, Minn.—The Thyroid and Its Diseases.
- 1923—Jas. S. McLester, Birmingham—Nutrition in Its Newer Aspects.
- 1924—James S. Stone, Boston—Abdominal Diagnoses in Children.
- 1925—H. A. Royster, Raleigh—The Surgeon's Heritage and Outlook.
- 1926—Stewart Roberts, Atlanta—The Heart Muscle.
- 1927—G. Canby Robinson, Baltimore—The Mechanism of Heart Failure and Its Correction.
- 1928—John B. Deaver, Philadelphia—Chronic Pancreatitis.
- 1929—Louis B. Wilson, Rochester, Minn.—Some Suggestions for Improved Training of Medical Specialists.
- 1930—Walter E. Sistrunk, Dallas, Texas—The Part That Surgical Anesthesia Has Played in Medical Science.
- 1931—R. S. Cunningham, Nashville, Tenn.—Studies on the Pathology of Tuberculosis and Syphilis.
- 1932—A. Benson Cannon, New York—Practical Points on the Diagnosis and Treatment of the so-called Lymphoblastoma Group of Diseases.
- 1933—J. Shelton Horsley, Richmond—Cancer of the Stomach and Colon.
- 1934—Russell L. Cecil, New York—Present Trends in the Study of Rheumatic Fever and Rheumatoid Arthritis.
- 1935—George H. Semken, New York—A Consideration of Tumors of the Breast.
- 1936—William D. Partlow, Tuscaloosa—A Debt the World Owes Medical Science.
- 1937—Frank H. Lahey, Boston—Carcinoma of the Colon and Rectum.
- 1938—T. M. McMillan, Philadelphia—An Optimistic View of Some of the Problems of Heart Disease.
- 1939—George T. Pack, New York—Recent Advances in the Radiation Therapy of Cancer.
- 1940—E. V. McCollum, Baltimore—Some Contributions of Nutritional Research to Clinical Medicine.
- 1941—M. Y. Dabney, Birmingham—The Story of Breast Cancer.
- 1942—Harvey B. Stone, Baltimore—Biliary Diseases as Seen by a Surgeon.
- 1943—A. C. Furstenberg, Ann Arbor—Objectives in Medical Education.
- 1944—Tinsley R. Harrison, Dallas, Texas—The Value and Limitations of Laboratory Tests in the Practice of Medicine.
- 1945—Meeting Cancelled.
- 1946—Alton Ochsner, New Orleans—The Influence of Serendipity on Medicine.
- 1947—Reginald Fitz, Boston—The Early Characteristics of Certain Chronic Diseases.
- 1948—Andrew C. Ivy, Chicago—The Gallbladder in Health and Disease.
- 1949—Max Thorek, Chicago—Cholecystectomy: Its Technical Variations.

1950—Paul D. White, Boston—Historical Delays in the Application of Knowledge About the Heart.

1951—Emil Novak, Baltimore—The Relation of Hormones to Female Genital Tumors.

1952—Richard Cattell, Boston—Carcinoma of the Colon and Rectum.

1953—Champ Lyons, Birmingham—Metabolic Aspects of Convalescence.

1954—Claude S. Beck, Cleveland—Operations for Coronary Disease.

1955—Charles W. Mayo, Rochester, Minn.—The Role of Medicine and Doctors in International Relations.

OFFICERS OF THE ASSOCIATION

PRESIDENT

Frank L. Chenault (1956) Decatur

PRESIDENT-ELECT

Grady O. Segrest (1957) Mobile

VICE-PRESIDENTS

T. J. Payne, Jr. (1956)	Jasper
W. R. Carter (1957)	Repton
Hugh Gray (1958)	Anniston
S. W. Windham (1959)	Dothan

SECRETARY-TREASURER

Douglas L. Cannon (1960) Montgomery

THE STATE BOARD OF CENSORS

E. V. Caldwell, Chm. (1960)	Huntsville
J. G. Daves (1960)	Cullman
John W. Simpson (1956)	Birmingham
J. Paul Jones (1956)	Camden
Robert Parker (1957)	Montgomery
C. E. Abbott (1957)	Tuscaloosa
John L. Branch (1958)	Montgomery
J. O. Finney (1958)	Gadsden
E. G. Givhan, Jr. (1959)	Birmingham
J. D. Perdue (1959)	Mobile

STATE HEALTH OFFICER

D. G. Gill (1957) Montgomery

DELEGATES AND ALTERNATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegate—J. Paul Jones Camden
Alternate—D. G. Gill Montgomery
(Term: January 1, 1954-December 31, 1955)

Delegate—E. Bryce Robinson Fairfield
Alternate—B. W. McNease Fayette
(Term: January 1, 1955-December 31, 1956)

Delegate—J. Paul Jones Camden
Alternate—D. G. Gill Montgomery
(Term: January 1, 1956-December 31, 1957)

STANDING COMMITTEES

COMMITTEE ON MEDICAL SERVICE AND PUBLIC RELATIONS

J. O. Finney, Chairman, Gadsden	1956
Haynes Byrne, Montgomery	1956
H. L. Holley, Birmingham	1957
H. G. Hodo, Jr., Fayette	1957
J. G. Daves, Cullman	1958

A. C. Gipson, Gadsden	1958
J. Paul Jones, Camden	1959
Julius Michaelson, Foley	1959
S. W. Windham, Dothan	1960
M. Vaun Adams, Mobile	1960
Frank L. Chenault, Decatur	<i>ex officio</i>
Douglas L. Cannon, Montgomery	<i>ex officio</i>
D. G. Gill, Montgomery	<i>ex officio</i>
Mrs. W. G. Thuss, Birmingham	<i>ex officio</i>

COMMITTEE ON MENTAL HYGIENE

Jack Jarvis, Chairman, Birmingham	1958
Frank A. Kay, Birmingham	1956
J. S. Tarwater, Tuscaloosa	1957

COMMITTEE ON MATERNAL AND CHILD HEALTH

Hughes Kennedy, Jr., Chm., Birmingham	1958
T. C. King, Anniston	1956
Buford Word, Birmingham	1957

COMMITTEE ON CANCER CONTROL

John Day Peake, Chairman, Mobile	1960
W. N. Jones, Birmingham	1956
J. P. Chapman, Selma	1957
A. E. Casey, Birmingham	1958
T. B. Hubbard, Jr., Montgomery	1959

COMMITTEE ON PREVENTION OF BLINDNESS AND DEAFNESS

Karl Benkwith, Chairman, Montgomery	1956
Gayle T. Johnson, Mobile	1957
Geo. E. Johnson, Dothan	1958

COMMITTEE ON POSTGRADUATE STUDY

J. R. Garber, Chairman, Birmingham	1957
A. J. Treherne, Atmore	1956
A. S. Dix, Mobile	1958

COMMITTEE ON PHYSICIAN-DRUGGIST RELATIONSHIPS

A. J. Treherne, Chairman, Atmore	1957
B. Frank Jackson, Jr., Montgomery	1956
R. C. Bibb, Huntsville	1958

COMMITTEE ON ANESTHESIOLOGY

Alfred Habeeb, Chm., Birmingham	1956
W. P. May, Montgomery	1957
Alice McNeal, Birmingham	1958

COMMITTEE ON TUBERCULOSIS

Robert K. Oliver, Chairman, Montgomery	1958
W. J. Tally, Gadsden	1956
A. J. Viehman, Birmingham	1957

COMMITTEE ON INDUSTRIAL MEDICINE

C. L. Yelton, Chairman, Fairfield	1958
W. G. Thuss, Birmingham	1956
E. A. Isbell, Gadsden	1957

LIAISON, UMWA MEDICAL CARE PROGRAM

E. Bryce Robinson, Chm., Fairfield	1960
J. E. Wood, Haleyville	1961
T. J. Payne, Jasper	1959
H. E. Simon, Birmingham	1958
L. H. Hubbard, Montevallo	1957
A. C. Jackson, Jasper	1956

SPECIAL COMMITTEES				
COMMITTEE ON INSURANCE				
J. O. Morgan, Chairman, Gadsden	1957	Brooks Bishop, Vice-Chm., Birmingham		1957
Victor T. Hudson, Mobile	1958	I. M. Wise, Mobile		1956
B. M. Carraway, Birmingham	1956	J. S. P. Beck, Tuscaloosa		1958
COMMITTEE ON THE CORONER SYSTEM				
J. A. Cunningham, Chm., Birmingham	1957	AMERICAN MEDICAL EDUCATION FOUNDATION		
		H. G. Hodo, Jr., Chairman, Fayette		1957
		E. L. Gibson, Enterprise		1956
		Julius Michaelson, Foley		1958

**REGISTRATION AT THE EIGHTY-SEVENTH ANNUAL
SESSION, MONTGOMERY, APRIL 21-23, 1955**

LIFE COUNSELLORS

Alison, J. F., Selma
Alison, S. B., Minter
Anderson, T. J., Greensboro
Bedsole, J. G., Jackson
Burdesaw, S. L., Headland
Caldwell, E. V., Huntsville
Cannon, D. L., Montgomery
Carter, W. R., Repton
Chenault, E. M., Decatur
Chenault, F. L., Decatur

Eskew, M. H., Uniontown
Garber, J. R., Birmingham
Granger, F. G., Ashford
Gresham, G. L., Opp
Hayes, C. P., Elba
Hill, R. L., Winfield
Hodges, Rayford, Scottsboro
Hubbard, T. B., Montgomery
Jackson, A. A., Florence
McAdory, E. D., Cullman

Martin, J. A., Montgomery
Oswalt, G. G., Mobile
Perdue, J. D., Mobile
Riser, W. H., Sr., Lafayette
Rucker, E. W., Jr., Birmingham
Salter, W. M., Anniston
Smith, G. R., Ozark
Thacker, V. J., Dothan
Walls, J. J., Alexander City
Weldon, J. M., Mobile

ACTIVE COUNSELLORS

Abbott, C. E., Jr., Tuscaloosa
Acker, C. T., Montevallo
Armstrong, J. H., Selma
Barber, W. J., Butler
Barnes, J. M., Montgomery
Baumhauer, J. H., Mobile
Bragg, J. C., Decatur
Branch, J. L., Montgomery
Brunson, E. T., Samson
Carraway, C. N., Birmingham
Chenault, J. M., Decatur
Clyde, W. A., Birmingham
Collier, J. P., Tuscaloosa
Conwell, H. E., Birmingham
Crawford, J. M., Arab
Daves, J. G., Cullman
Davis, J. W., Jr., Montgomery
Donald, D. C., Birmingham
Donald, J. M., Birmingham
Finney, J. O., Gadsden
Foshee, R. A., Alexander City
Gibson, E. L., Enterprise
Gill, D. G., Montgomery
Givhan, E. G., Jr., Birmingham
Godard, C. G., Fairhope

Golden, W. C., Clanton
Gray, H. E., Anniston
Grote, C. A., Huntsville
Guest, R. J., Jr., Fort Payne
Hill, R. C., York
Hill, R. L., Haleyville
Hollis, M. C., Winfield
Holloway, H. S., Notasulga
Howell, J. P., Selma
Isbell, A. L., Albertville
Jackson, A. C., Jasper
Johnson, G. T., Mobile
Jones, J. P., Camden
Kennedy, Hughes, Birmingham
Killingsworth, N. W., Brundidge
Littlejohn, W. S., Birmingham
McCown, W. G., Huntsville
McNease, B. W., Fayette
Matthews, A. D., Ozark
Mazyck, Arthur, Dothan
Moore, C. W. C., Talladega
Moore, E. G., Tallassee
Morgan, J. O., Gadsden
Morgan, J. R., Birmingham

Neal, R. D., Grove Hill
Newton, G. E., Prattville
Nickerson, Paul, Sylacauga
Owings, W. J. B., Brent
Parker, L. L., Andalusia
Parker, Robert, Montgomery
Riggs, F. W., Montgomery
Roan, A. M., Decatur
Robinson, E. B., Jr., Fairfield
Samford, M. W., Opelika
Segrest, G. O., Mobile
Shell, J. R., Abbeville
Simpson, J. W., Birmingham
Smith, J. D., Eutaw
Stabler, L. V., Greenville
Stallworth, W. A., Beatrice
Timberlake, Landon, Birmingham
Treherne, A. J., Atmore
Underwood, S. S., Birmingham
Waters, H. W., Opp
Watson, Jerre, Anniston
Wilkerson, A. F., Marion
Wilson, F. C., Birmingham
Woods, T. B., Jr., Dothan

DELEGATES

Autauga:	R. K. Nichols, Prattville	Chilton:	C. O. Lawrence, Clanton; J. W. Moore, Clanton	Dale:	L. D. McLaughlin, Ozark; B. D. Petrey, Ozark
Baldwin:	R. H. Johnson, Fairhope	Choctaw:	R. H. Allen, Butler	Dallas:	J. P. Chapman, Selma; J. R. Williams, Selma
Barbour:	F. M. Cronic, Eufaula	Clarke:	J. P. Mudd, Jr., Jackson	DeKalb:	C. D. Killian, Ft. Payne; G. I. Weatherly, Jr., Ft. Payne
Bibb:	J. Ethel Montgomery, West Blocton	Clay:	J. E. Foster, Lineville	Elmore:	J. R. Benson, Eclectic; E. O. Majure, Tallassee
Blount:	L. E. Kirkland, Oneonta	Coffee:	L. M. Johnson, Elba	Escambia:	F. M. Phillipi, Brewton
Bullock:	S. A. Cohn, Union Springs; O. Emfinger, Union Springs	Covington:	S. C. Hamner, Andalusia; J. C. Hurst, Opp	Fayette:	H. G. Hodo, Jr., Fayette
Chambers:	P. W. Auston, Langdale; N. A. Wheeler, Jr., Lafayette	Crenshaw:	L. A. Windham, Luverne	Franklin:	Price Clayton, Russellville
		Cullman:	L. H. Clemons, Cullman; G. T. Rowe, Hanceville		

- Geneva: H. A. Childs, Samson
Henry: L. P. Shell, Abbeville
Houston: G. E. Johnson, Dothan
Jackson: E. J. Hodges, Scottsboro; M. H. Lynch, Scottsboro
Jefferson: P. W. Burleson, Birmingham; S. J. Campbell, Birmingham; B. M. Carraway, Birmingham; E. B. Glenn, Birmingham; J. B. McLester, Birmingham; W. F. Scott, Jr., Birmingham; J. K. Ward, Birmingham
Lauderdale: K. R. Deibert, Florence; H. M. Simpson, Jr., Florence
Lee: J. G. Palmer, Opelika
Lowndes: J. J. Kirschenfeld, Ft. Deposit; J. A. Sherrod, Hayneville
Macon: B. W. Booth, Shorter;
- R. F. Higgins, Tuskegee
Madison: F. W. Smith, Huntsville
Marengo: R. M. Gross, Demopolis; C. E. Kimbrough, Linden
Marion: R. H. Mason, Hamilton; T. R. Wear, Hamilton
Marshall: M. T. Hunt, Boaz; E. F. Porch, Arab
Mobile: V. H. Hill, Mobile; J. H. Little, Mobile; W. L. Sellers, Mobile
Monroe: W. W. Eddins, Monroeville; R. A. Smith, Jr., Monroeville
Montgomery: H. C. Byrne, Montgomery; E. P. Jabour, Montgomery; H. B. Praytor, Montgomery; W. F. Reynolds, Montgomery
Morgan: C. K. Pitt, Decatur; J. C. Nash, Decatur
- Perry: W. H. DeRamus, Marion; W. L. Wiser, Marion
Pickens: H. W. Hill, Carrollton
Pike: J. A. Brantley, Troy; C. L. Golden, Brundidge
Randolph: D. E. Owensby, Woodland
Shelby: W. C. Browne, Vincent; L. H. Hubbard, Montevallo
Talladega: R. F. Bliss, Talladega; W. C. Friday, Sylacauga
Tallapoosa: J. R. Chapman, East Tallasee; L. M. Lamberth, Alexander City
Tuscaloosa: J. H. Goode, Tuscaloosa; A. M. Walker, Tuscaloosa
Walker: R. W. Baker, Dora; L. M. Walker, Jasper
Wilcox: J. D. Nettles, Arlington

MEMBERS

A

Abrams, M. J., Montgomery
Anderson, B. F., Sellers
Austin, B. F., Montgomery

B

Banks, J. T., Dadeville
Beck, C. K., Troy
Beck, J. S. P., Tuscaloosa
Bender, T. J., Jr., Mobile
Benkwith, K. B., Montgomery
Berrey, I. C., Birmingham
Berrey, Ruth, Birmingham
Bird, B. C., Montgomery
Blake, W. A., Mobile
Bograd, Nathan, Montgomery
Boozer, T. S., Montgomery
Bostwick, J. L., Montgomery
Bragg, E. G., Elba
Brannon, W. T., Montgomery
Britton, J. W., Foley
Britton, W. R., Montgomery
Broach, N. L., Pine Level
Brooks, Clyde, Tuscaloosa
Brown, A. G., Fairfield
Brown, M. W., Auburn
Bruce, B. S., Opelika
Burrett, J. B., Birmingham
Burson, E. G., Furman
Burwell, P. K., Montgomery
Bush, J. D., Gadsden
Butler, J. L., Birmingham

C

Caffey, B. F., Jr., Anniston
Caldwell, H. E., Birmingham
Cameron, J. E., Alexander City
Cameron, J. M., Montgomery
Campbell, E. F., Montgomery
Cannon, E. R., Vredenburgh
Carmichael, J. L., Birmingham
Carmichael, J. N., Fairfield
Carpenter, B. S., Sr., Fairfield

Carpenter, B. S., Jr., Ensley
Carroll, G. E., Mobile
Chapman, J. A., Alexander City
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The science and art of medicine are not static, nor should they be. Inspired men of science are constantly exploring the frontiers of disease and therapy thereby advancing the prevention and treatment of illness and prolonging the span of human life. The peoples of the world, both lay and professional, during the past fifty years have had the marvelous opportunity to recognize the almost visible growth of medical knowledge and practice.—Frank L. Chenault, M. D.

SUMMARY OF ANNUAL ATTENDANCE

Year	Life	Counsellors	Active	Counsellors	Delegates	Members	Auxiliary,	Total	Place	
	Counsellors	Delegates	Members	Auxiliary,	Others					
1924	29	70	84	230	79	492	Montgomery			
1925	27	78	97	328	113	643	Birmingham			
1926	33	74	105	194	131	537	Mobile			
1927	36	85	104	252	87	564	Montgomery			
1928	33	77	108	507	106	831	Birmingham			
1929	19	60	102	176	109	466	Mobile			
1930	32	83	106	286	102	609	Montgomery			
1931	26	80	116	410	158	790	Birmingham			
1932	19	60	101	158	133	471	Mobile			
1933	21	74	103	264	85	547	Montgomery			
1934	26	75	97	404	53	655	Birmingham			
1935	15	59	91	180	83	428	Mobile			
1936	23	79	95	265	68	530	Montgomery			
1937	25	80	96	396	81	678	Birmingham			
1938	18	65	78	157	63	381	Mobile			
1939	29	79	96	326	84	614	Montgomery			
1940	29	77	105	401	229	841	Birmingham			
1941	29	66	86	211	91	483	Mobile			
1942	33	75	105	249	82	544	Montgomery			
1943	31	71	83	321	127	633	Birmingham			
1944	33	72	92	214	110	521	Montgomery			
1945	Meeting Cancelled									
1946	38	81	87	330	127	663	Birmingham			
1947	34	76	91	333	124	658	Birmingham			
1948	24	64	87	239	127	541	Mobile			
1949	31	84	93	288	106	602	Montgomery			
1950	26	85	91	391	118	711	Birmingham			
1951	21	75	84	281	115	576	Mobile			
1952	27	81	90	314	141	653	Montgomery			
1953	24	81	91	403	129	728	Birmingham			
1954	15	62	83	267	139	566	Mobile			
1955	30	73	85	301	290	779	Montgomery			

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Volume 24

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Cancer strikes one out of four persons. It strikes men, women and children alike. While many think cancer is primarily a woman's disease, statistics show that more men than women are now dying of cancer. Among children, cancer takes more lives between the ages of 3 and 15 than any other disease.

Next to heart ailments, cancer kills more people than any other malady. Out of every seven deaths in the United States, one is caused by cancer. Out of every four who get cancer, one is saved and three die. Yet cancer is not "hopeless." Although science has not found the tools to cure some types of cancer, most cancer can be cured if found and treated in the early stage.

Time is a vital factor in effective treatment. Even with the weapons of surgery, X-ray and radium, doctors can save only the early cases.

In most cases, the difference between life and death is the difference between time of diagnosis and treatment.

